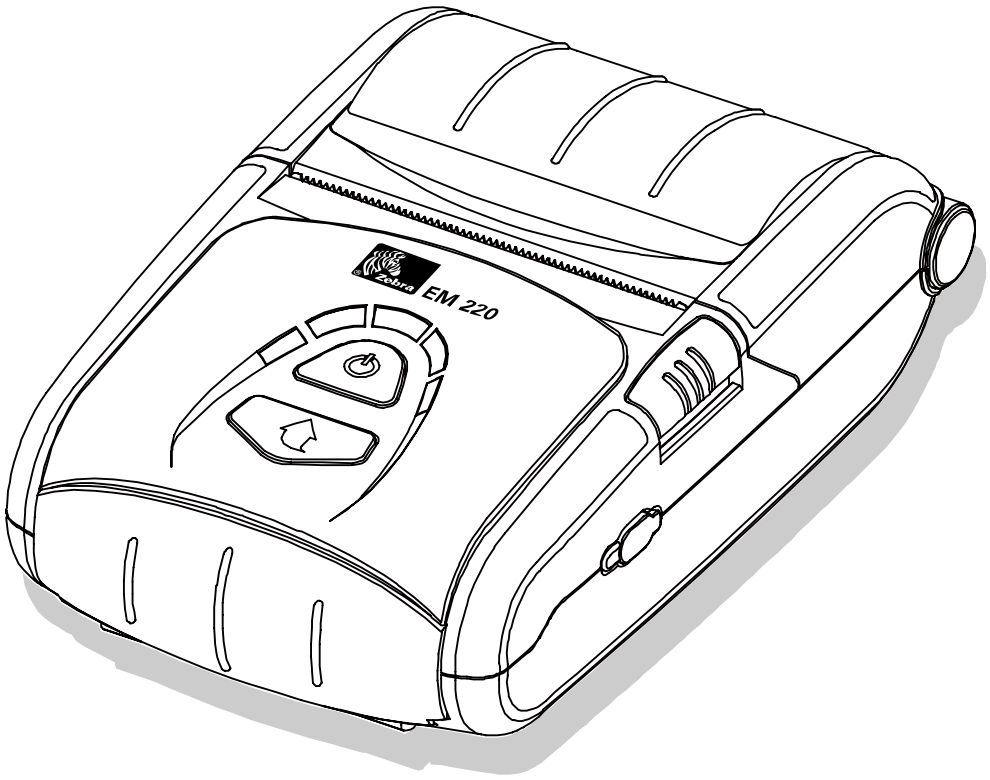
EM 220

Mobile Printer
Windows Driver Manual



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• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver.

• Connect the equipment into an outlet or circuit different from that to which the receiver is connected.

• Consult the dealer or an experienced radio/TV technician for help.

WARNING: Exposure to Radio Frequency radiation. To conform to FCC RF exposure requirements this device shall be used in accordance with the operating conditions and instructions listed in this manual.

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Changes or modifications to this unit not expressly approved by Zebra Technologies Corporation could void the user's authority to operate this equipment.

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Cet appareil numérique de la classe B est conforme á la norme NMB-003 du Canada.

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1. Manual Information

This Windows Driver Installation Manual provides information on installation, detailed specifications, and usage of the printer's Windows Driver according to PC operating system (OS).

2. Operating System (OS) Environment

The following operating systems are supported for usage:

- Microsoft Windows 98 Gold
- Microsoft Windows 98 Second Edition
- Microsoft Windows Millennium Edition
- Microsoft Windows 2000
- Microsoft Windows XP
- Microsoft Windows 2003 Server
- Microsoft Windows Embedded For Point Of Service
- Microsoft Windows VISTA 32-bit

3. Windows Driver Preparation

The Windows Driver is included in the enclosed CD, and can also be downloaded from the Zebra website.
(http://www.zebra.com/)

If downloading from the Zebra website, first download the EM 220_Vx.x.xx.zip file, then unzip the file, and run the EM 220_Vx.x.xx.exe file.

If using the enclosed CD, click the "Windows Driver" button to find and run the Windows Driver installation file (EM 220_Vx.x.xx.exe).

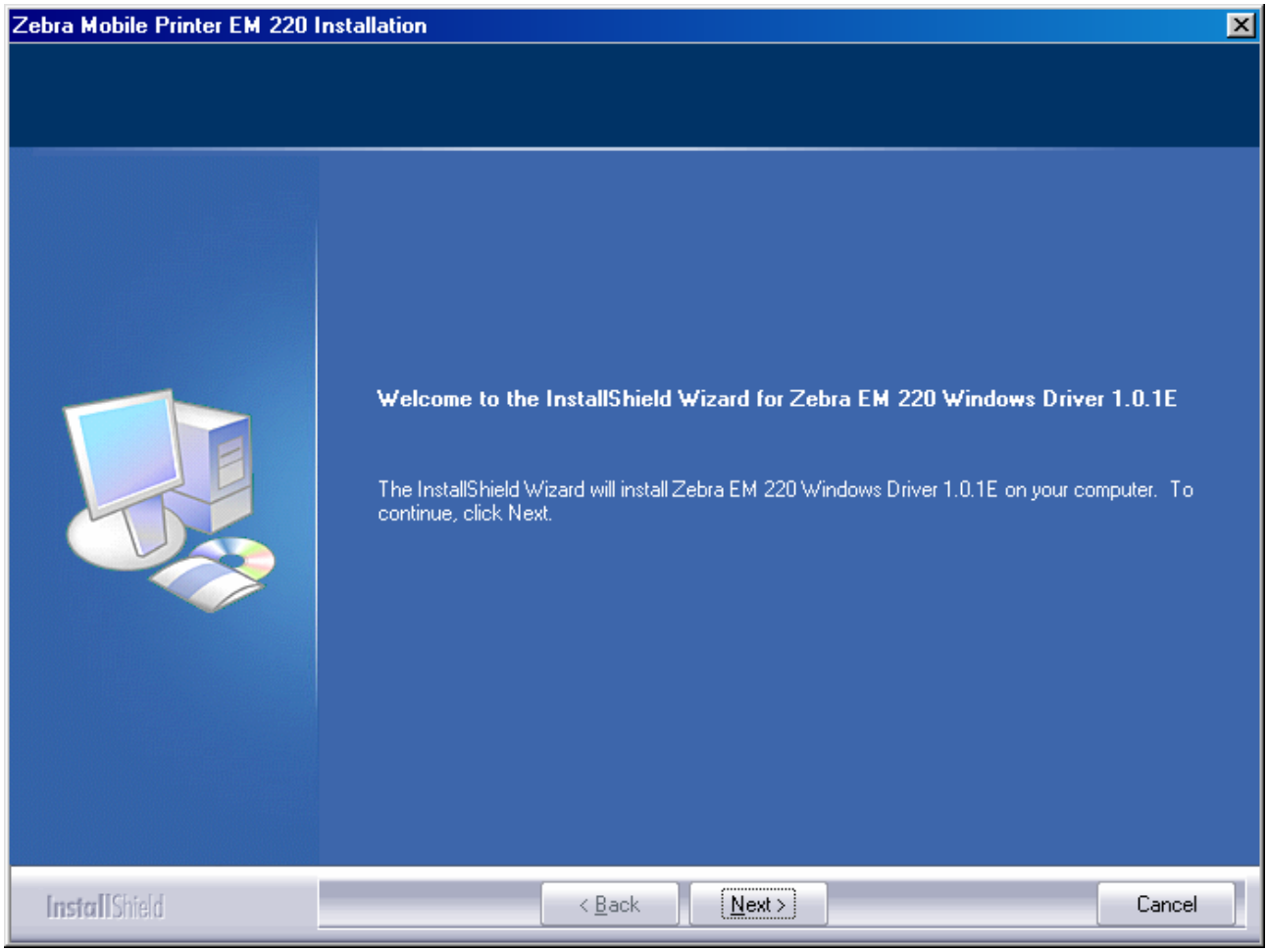
4. Windows Driver Installation

4-1 Installing on Windows 98/ME

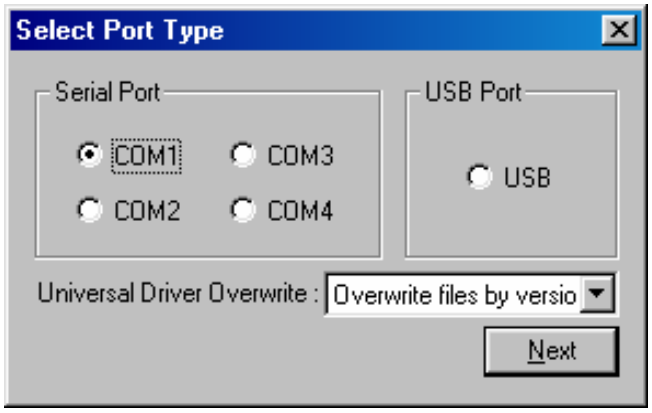
4-1-1 Via Serial Port

1) Double-click the Windows Driver installation file (EM 220_Vx.x.xx.exe).

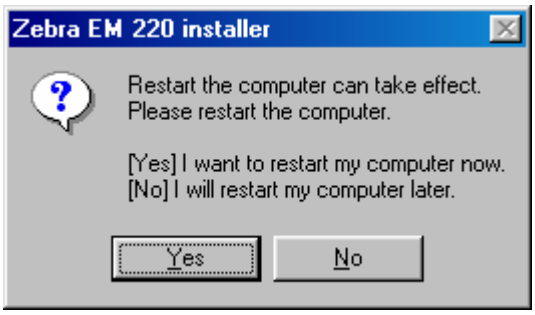
2) Click the “Next” button.


Zebra Mobile Printer EM 220 Installation
Welcome to the InstallShield Wizard for Zebra EM 220 Windows Driver 1.0.1E
The InstallShield Wizard will install Zebra EM 220 Windows Driver 1.0.1E on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

3) Select the COM port to be used and click the “Next” button.



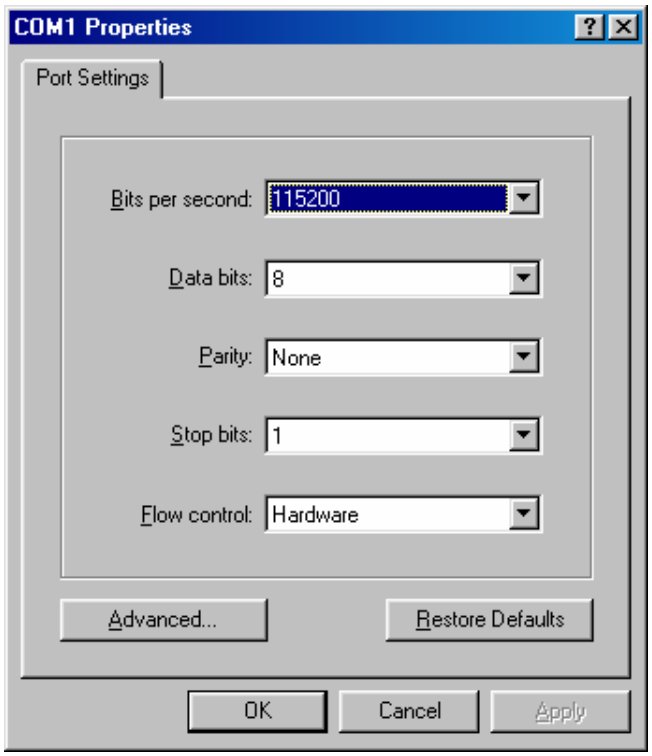
4) Clicking the “Yes” button will reboot the PC.


Zebra EM 220 installer
Restart the computer can take effect.
Please restart the computer.
[Yes] I want to restart my computer now.
[No] I will restart my computer later.
Yes
No

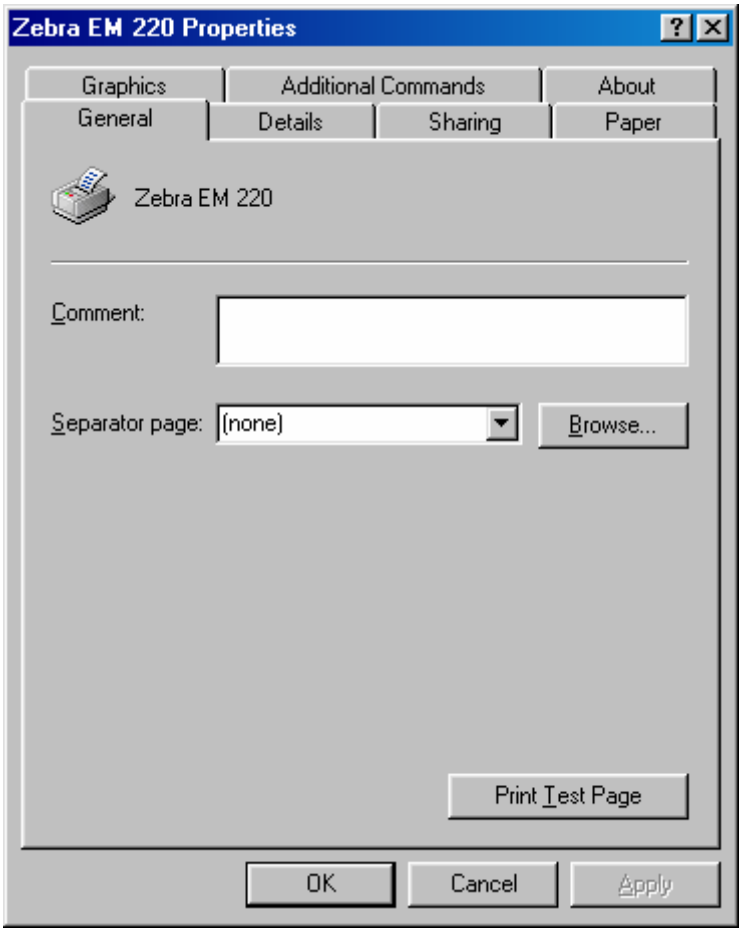
5) Open the printer properties window in the Windows OS.

6) Click the “Port Settings…” button in the “Details” tab.

7) Match the communication settings to those of the printer.
(The communication settings of the printer can be performed by conducting a self-test.)



8) Click the “Print Test Page” button and check printing status.

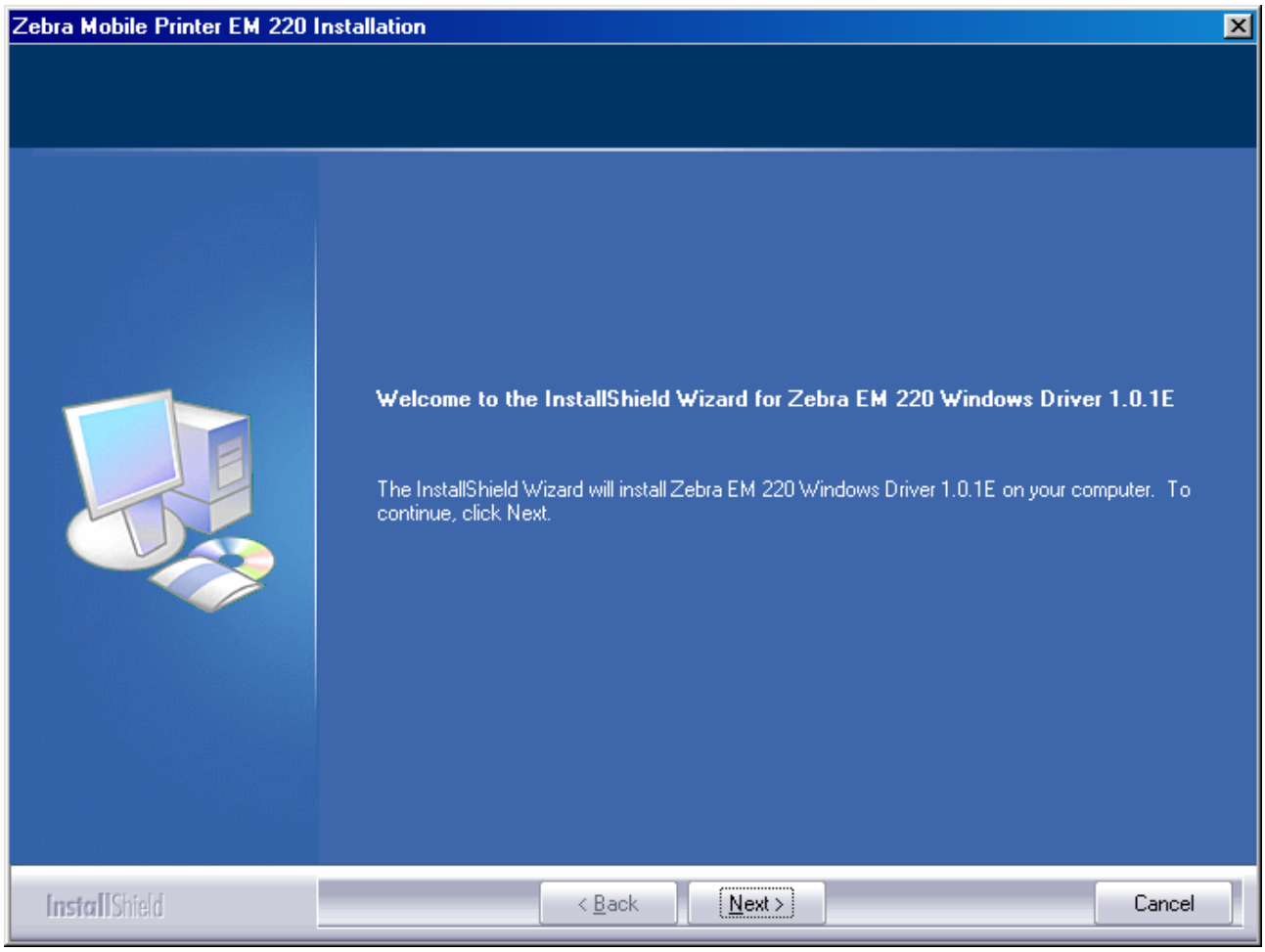


9) Proper installation of the driver is indicated if the test page is printed normally.

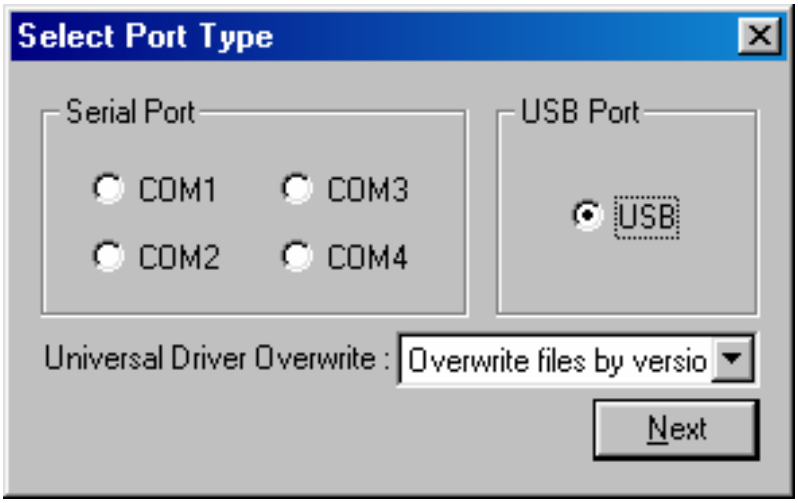
4-1-2 Via USB Port

1) Double-click the Windows Driver installation file (EM 220_Vx.x.xx.exe).

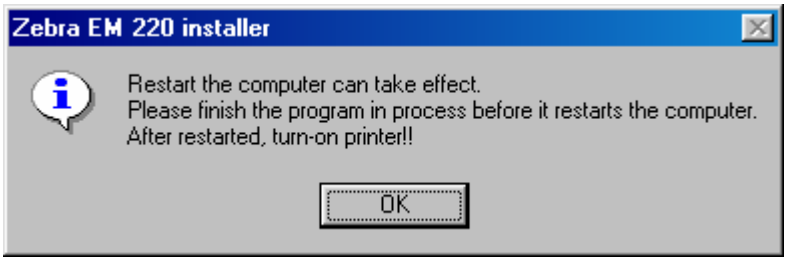
2) Click the “Next” button.


Zebra Mobile Printer EM 220 Installation
Welcome to the InstallShield Wizard for Zebra EM 220 Windows Driver 1.0.1E
The InstallShield Wizard will install Zebra EM 220 Windows Driver 1.0.1E on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

3) Select USB and click the “Next” button.

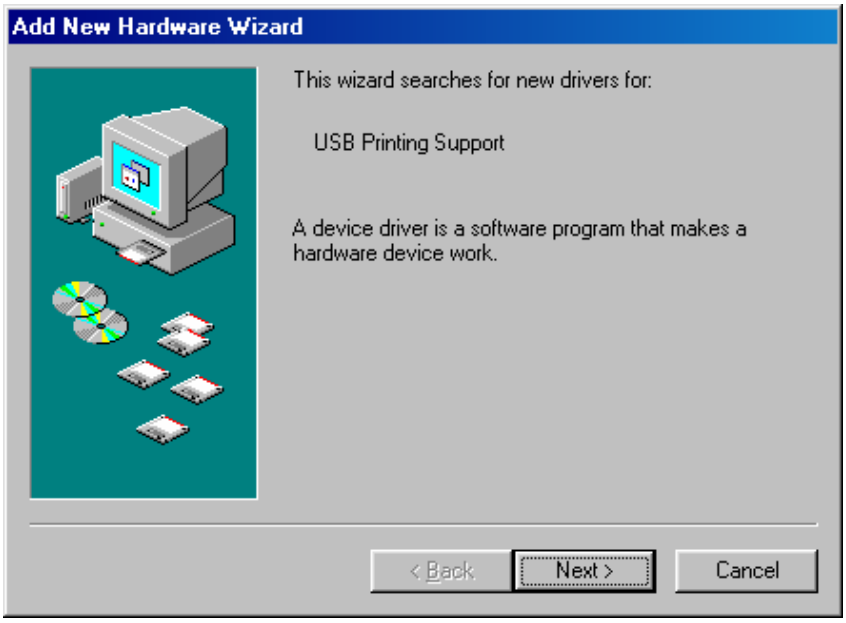


4) Clicking the “OK” button will reboot the PC.


Zebra EM 220 installer
Restart the computer can take effect.
Please finish the program in process before it restarts the computer.
After restarted, turn-on printer!!
OK

5) Turn on the printer.

6) When the New Hardware Wizard appears for the installation of the “USB Printing Support” Driver, click the “Next” button.


Add New Hardware Wizard
This wizard searches for new drivers for:
USB Printing Support
A device driver is a software program that makes a hardware device work.
< Back
Next >
Cancel

7) Continue to click the “Next” button.

Add New Hardware Wizard
What do you want Windows to do?
Search for the best driver for your device. (Recommended).
Display a list of all the drivers in a specific location, so you can select the driver you want.
< Back
Next >
Cancel

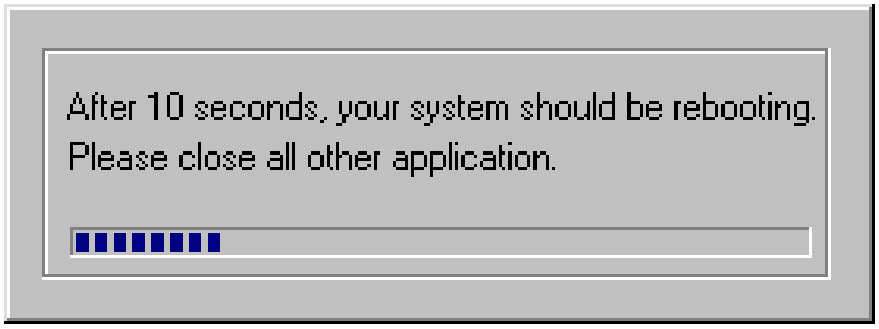
8) Continue to click the “Next” button.

Add New Hardware Wizard
Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.
Floppy disk drives
CD-ROM drive
Microsoft Windows Update
Specify a location:
H:\NMS-S1\Win9x
Browse...
< Back
Next >
Cancel

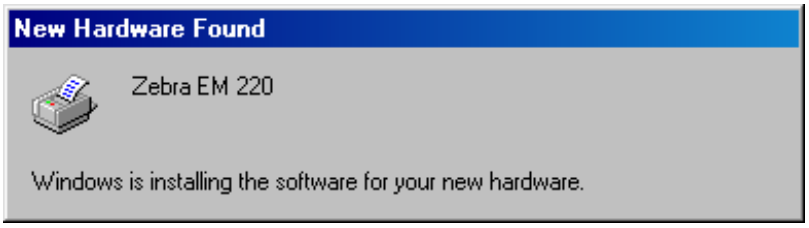
9) Continue to click the “Next” button.

Add New Hardware Wizard
Windows driver file search for the device:
USB Printing Support
Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue.
Location of driver:
C:\WINDOWS\INF\USBPRINT.INF
< Back
Next >
Cancel

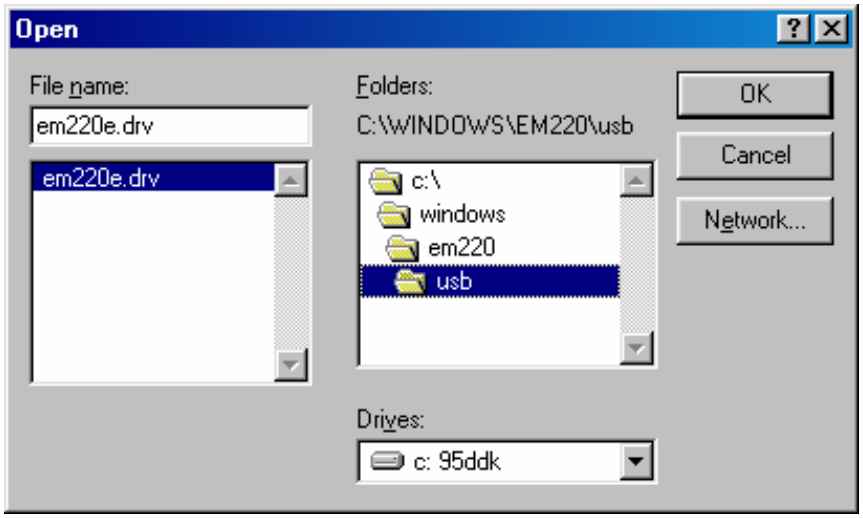
10) When the “USB Printing Support” Driver installation is complete, the system automatically reboots.



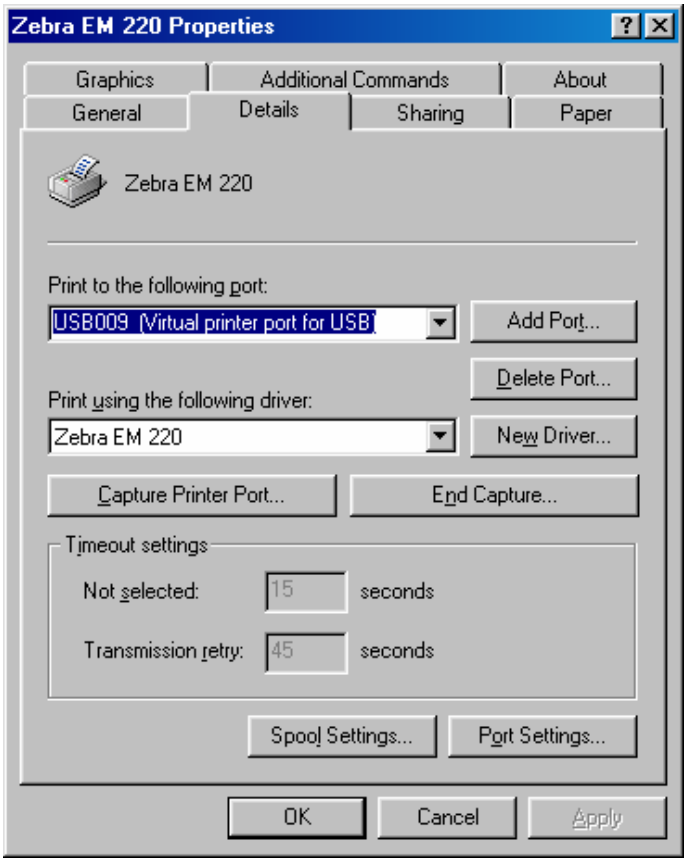
11) After system rebooting, the Windows Driver is automatically installed.



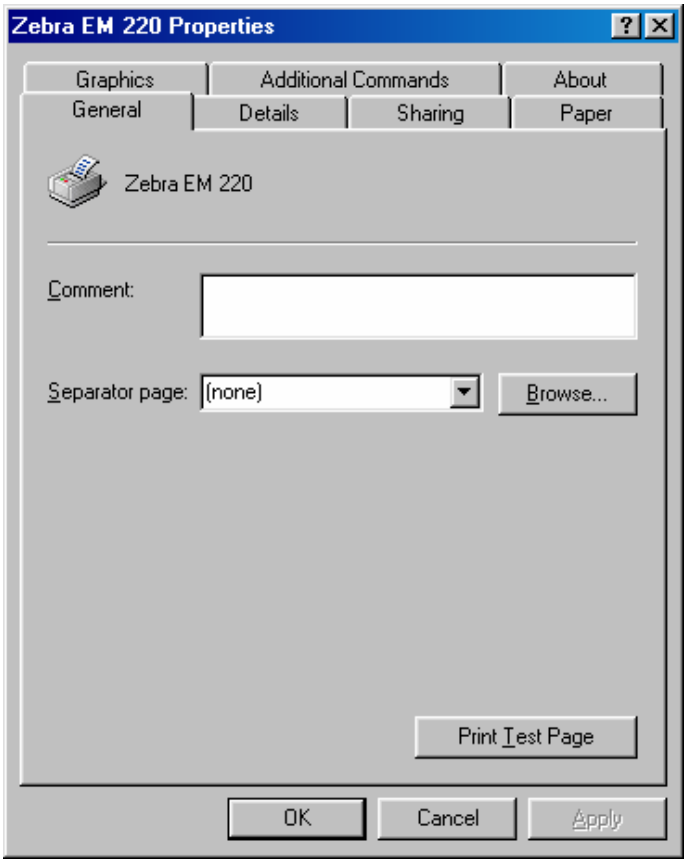
* If an error occurs during software installation, save the location.
(Location: “C:\WINDOWS\EM220\usb”)



12) Confirm the USB Port setting in the Windows Driver properties.



13) Click the “Print Test Page” button and check printing status.



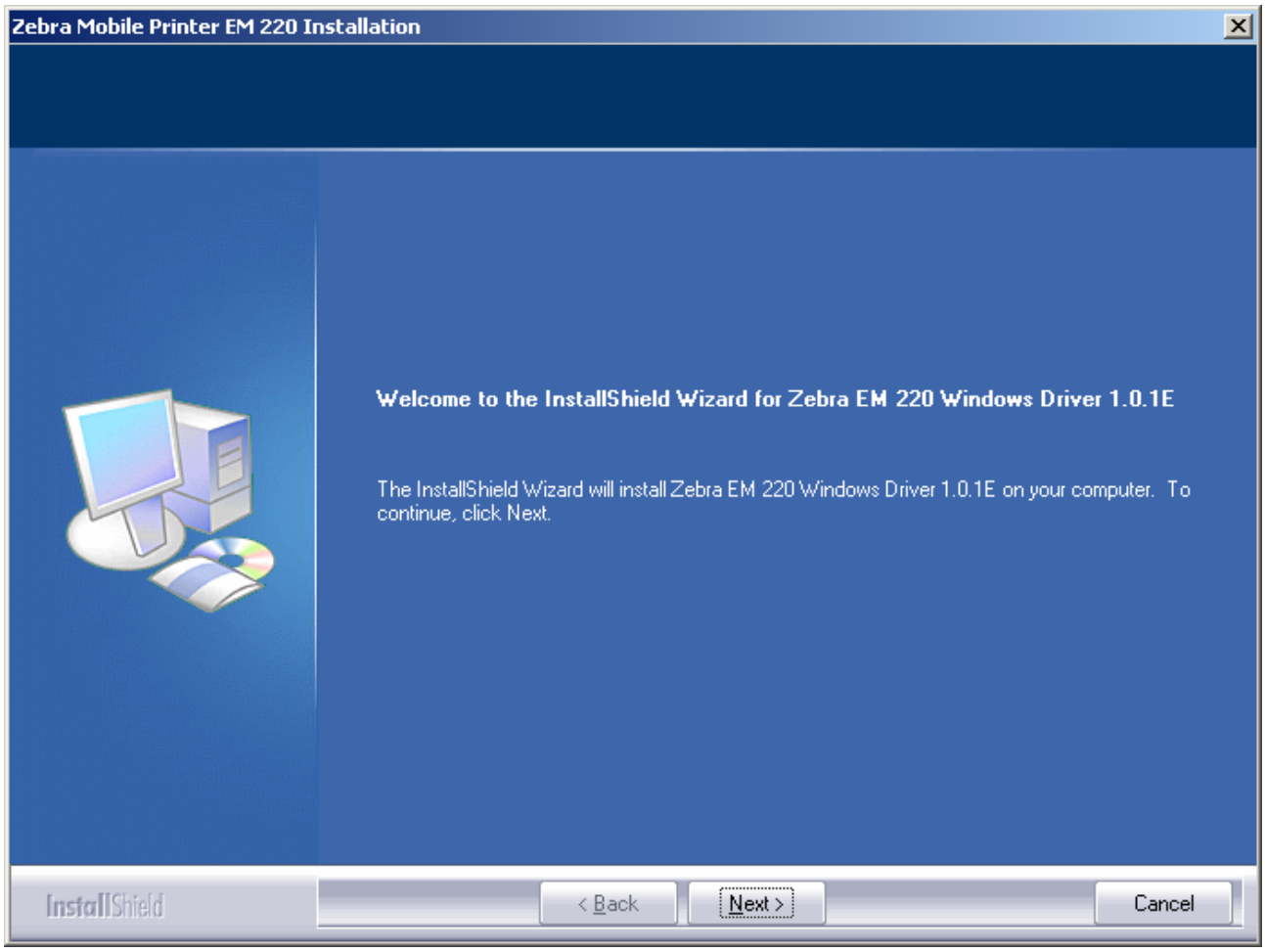
14) Proper installation of the driver is indicated if the test page is printed normally.

4-2 Installing on Windows 2000

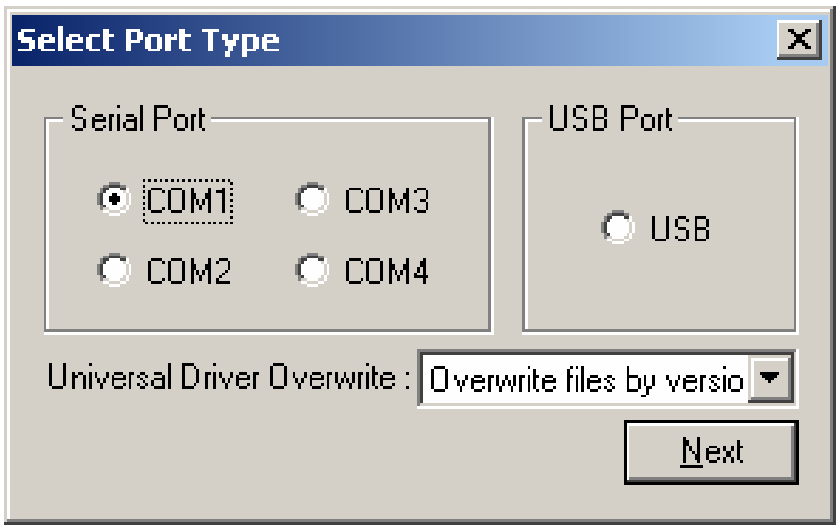
4-2-1 Via Serial Port or Bluetooth

1) Double-click the Windows Driver installation file (EM 220_Vx.x.xx.exe).

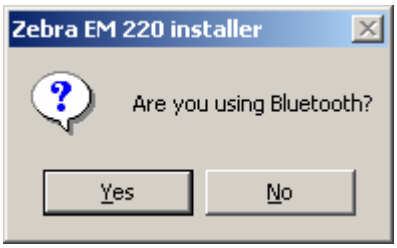
2) Click the “Next” button.


Zebra Mobile Printer EM 220 Installation
Welcome to the InstallShield Wizard for Zebra EM 220 Windows Driver 1.0.1E
The InstallShield Wizard will install Zebra EM 220 Windows Driver 1.0.1E on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

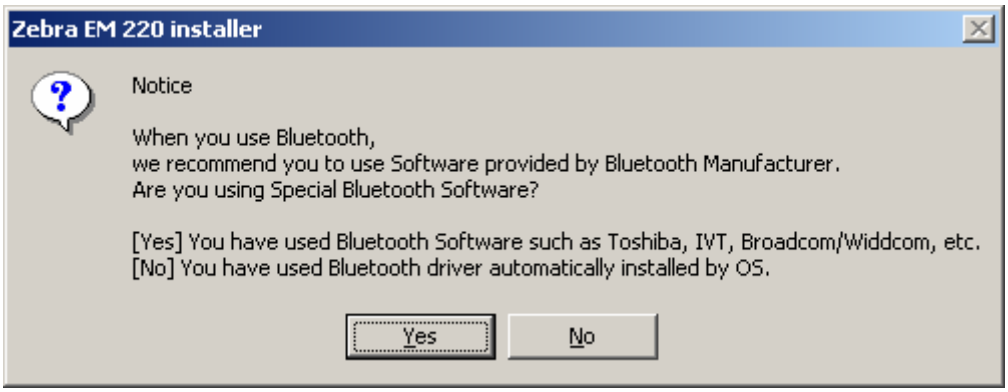
3) Select the COM port to be used and click the “Next” button.



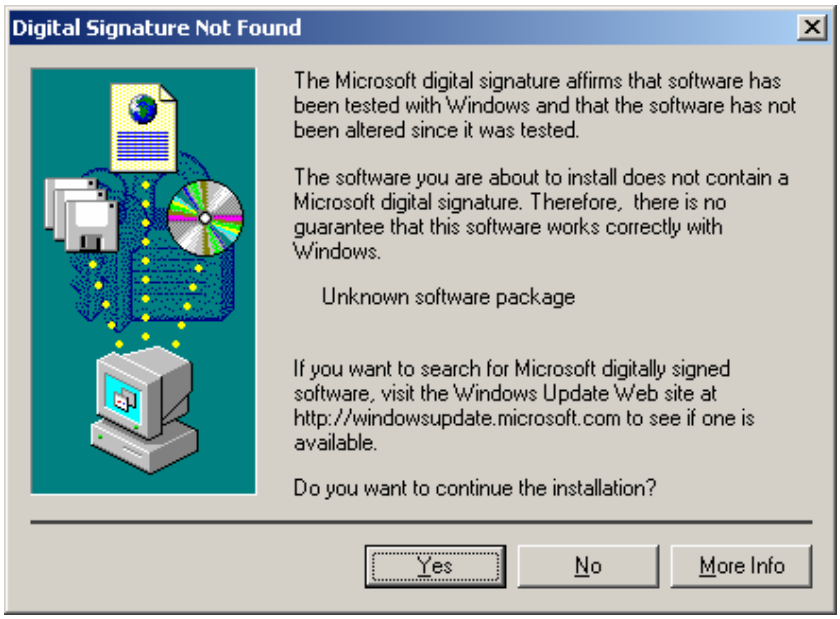
4) If using Bluetooth, click the “Yes” button.
- Click “No” if using a Serial port.
- To use Bluetooth, first install the corresponding product software.
(Refer to the user manual of the corresponding product.)



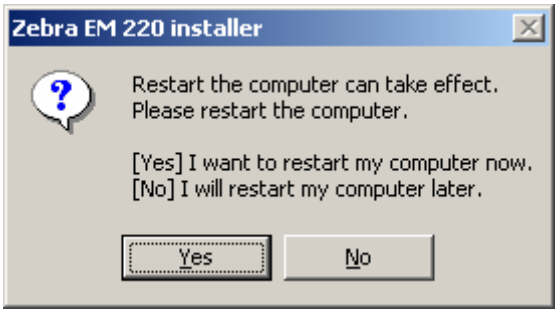
* Select the Bluetooth Driver to be used.
“Yes”: to use an IVT, Broadcom Driver
“No”: to use a driver supplied by the Windows OS


Zebra EM 220 installer
Notice
When you use Bluetooth,
we recommend you to use Software provided by Bluetooth Manufacturer.
Are you using Special Bluetooth Software?
[Yes] You have used Bluetooth Software such as Toshiba, IVT, Broadcom/Widdcom, etc.
[No] You have used Bluetooth driver automatically installed by OS.
Yes
No

5) When the following message box appears, click the “Yes” button.


Digital Signature Not Found
The Microsoft digital signature affirms that software has been tested with Windows and that the software has not been altered since it was tested.
The software you are about to install does not contain a Microsoft digital signature. Therefore, there is no guarantee that this software works correctly with Windows.
Unknown software package
If you want to search for Microsoft digitally signed software, visit the Windows Update Web site at http://windowsupdate.microsoft.com to see if one is available.
Do you want to continue the installation?
Yes
No
More Info

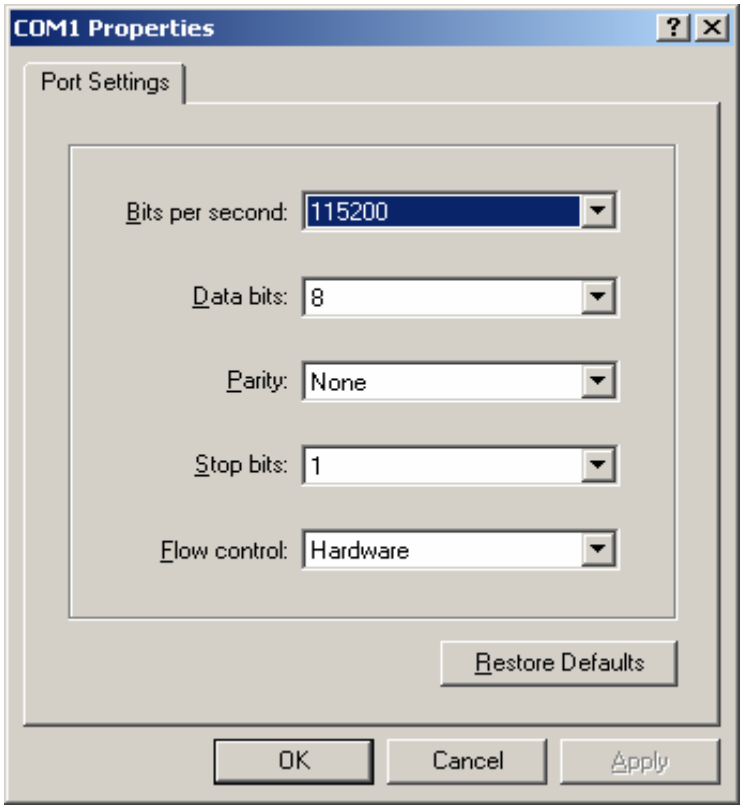
6) Clicking the “Yes” button will reboot the PC.


Zebra EM 220 installer
Restart the computer can take effect.
Please restart the computer.
[Yes] I want to restart my computer now.
[No] I will restart my computer later.
Yes
No

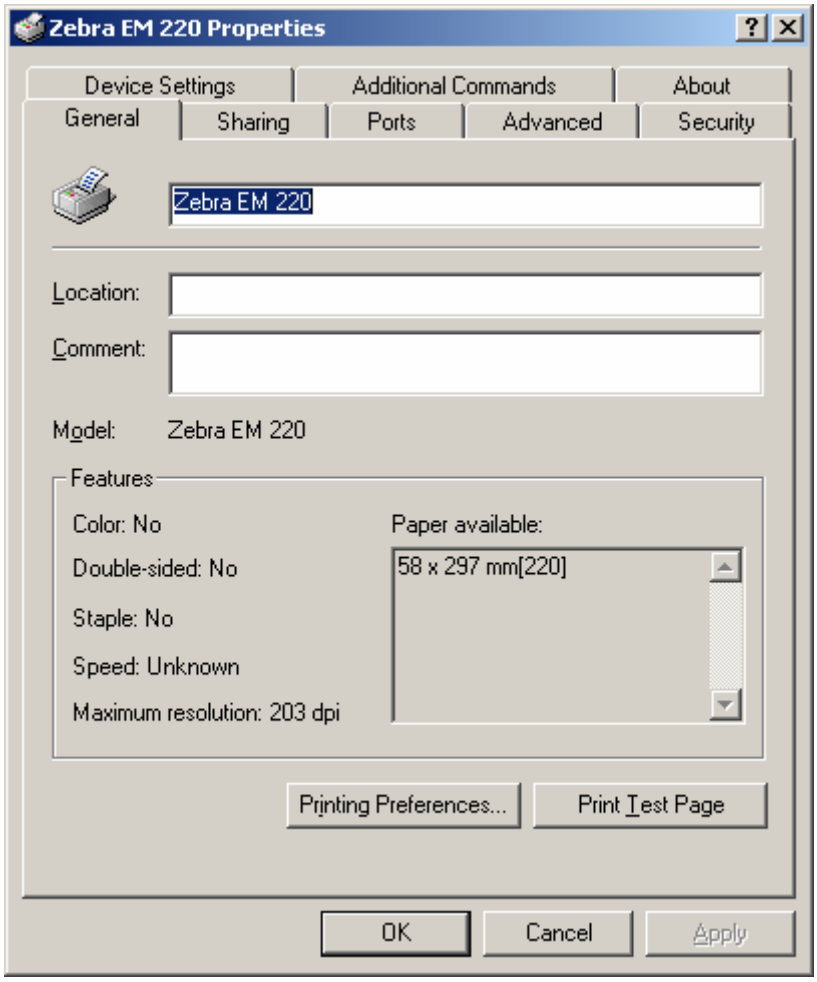
7) Open the printer properties window in the Windows OS.

8) Click the “Port Settings” button in the “Ports” tab.

9) Match the communication settings to those of the printer.
(The communication settings of the printer can be performed by conducting a self-test.)



10) Click the “Print Test Page” button and check printing status.

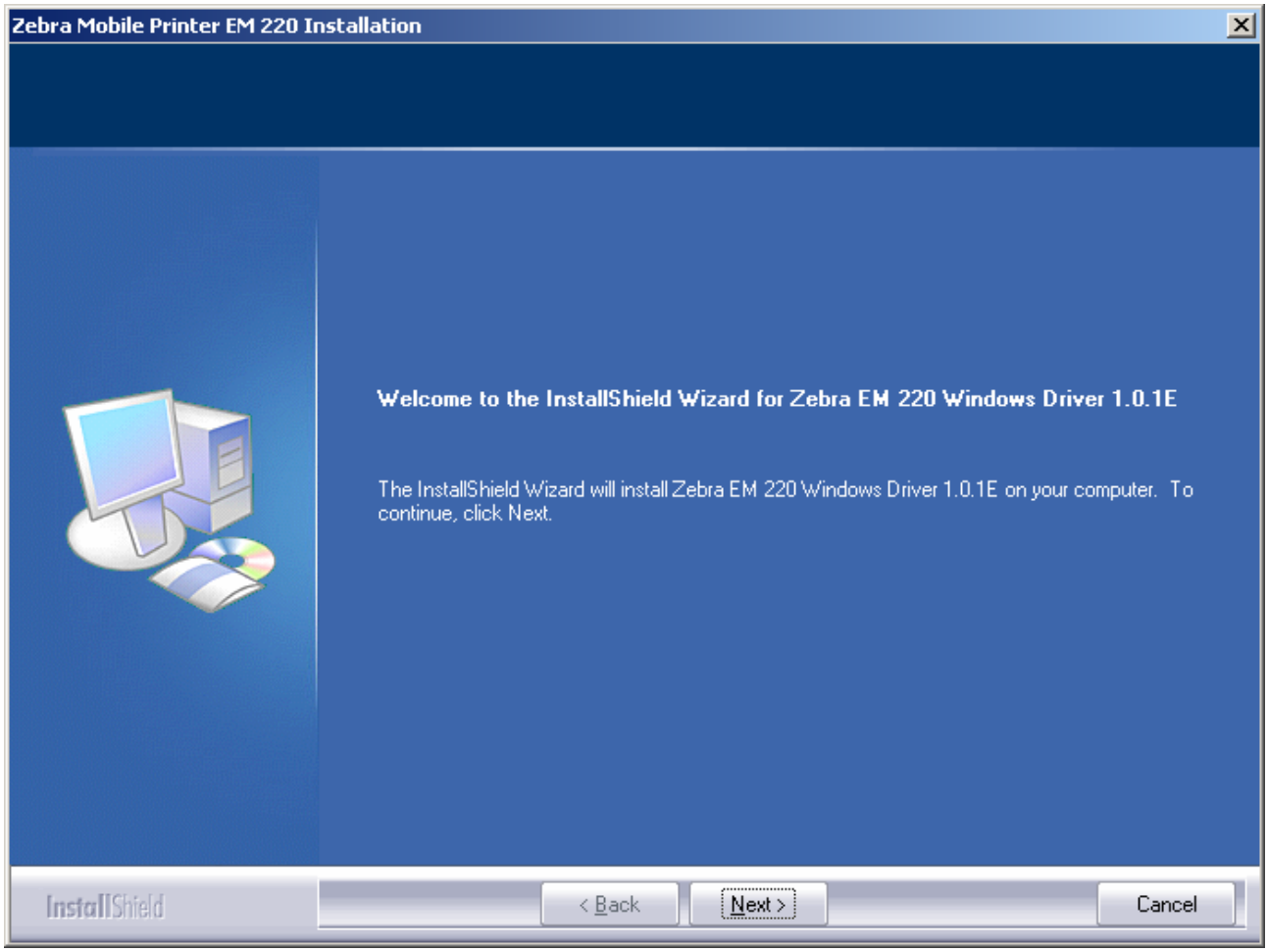


11) Proper installation of the driver is indicated if the test page is printed normally.

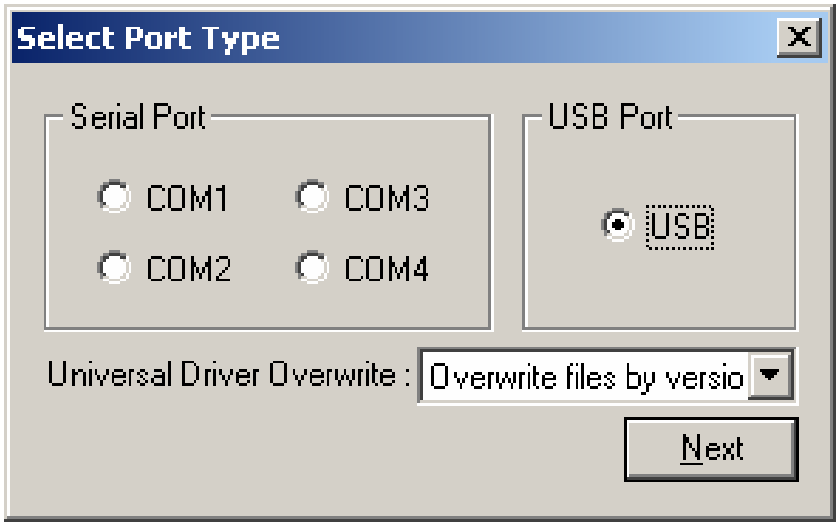
4-2-2 Via USB Port

1) Double-click the Windows Driver installation file (EM 220_Vx.x.xx.exe).

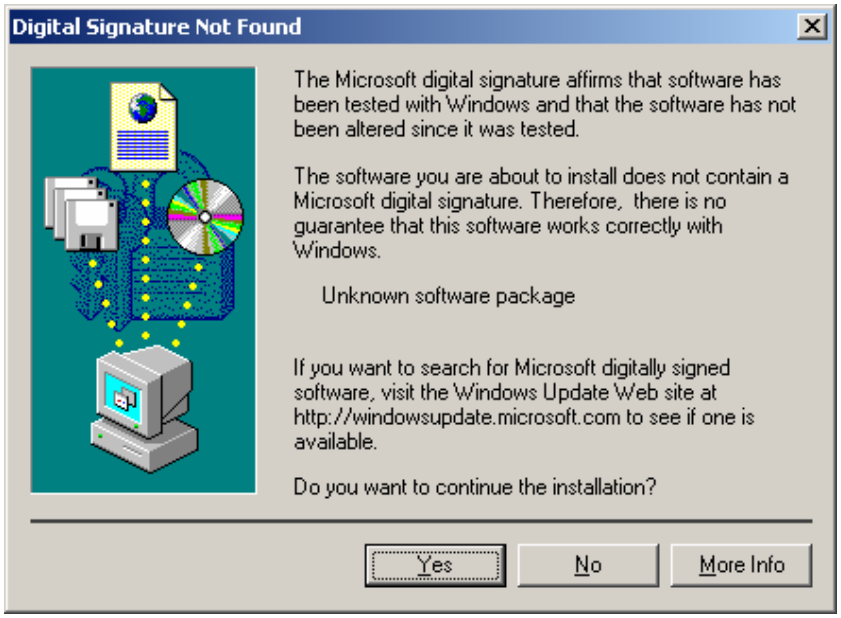
2) Click the “Next” button.


Zebra Mobile Printer EM 220 Installation
Welcome to the InstallShield Wizard for Zebra EM 220 Windows Driver 1.0.1E
The InstallShield Wizard will install Zebra EM 220 Windows Driver 1.0.1E on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

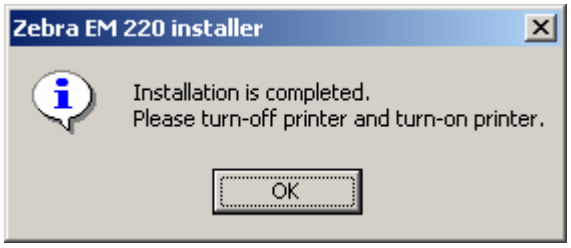
3) Select USB and click the “Next” button.



4) When the following message box appears, click the “Yes” button.


Digital Signature Not Found
The Microsoft digital signature affirms that software has been tested with Windows and that the software has not been altered since it was tested.
The software you are about to install does not contain a Microsoft digital signature. Therefore, there is no guarantee that this software works correctly with Windows.
Unknown software package
If you want to search for Microsoft digitally signed software, visit the Windows Update Web site at http://windowsupdate.microsoft.com to see if one is available.
Do you want to continue the installation?
Yes
No
More Info

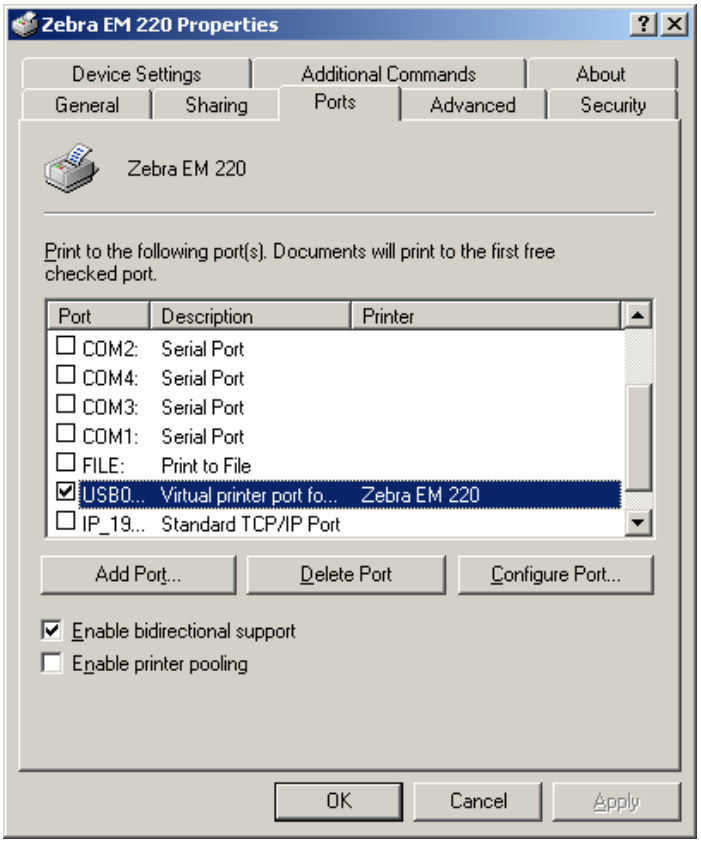
5) Click the “OK” button.



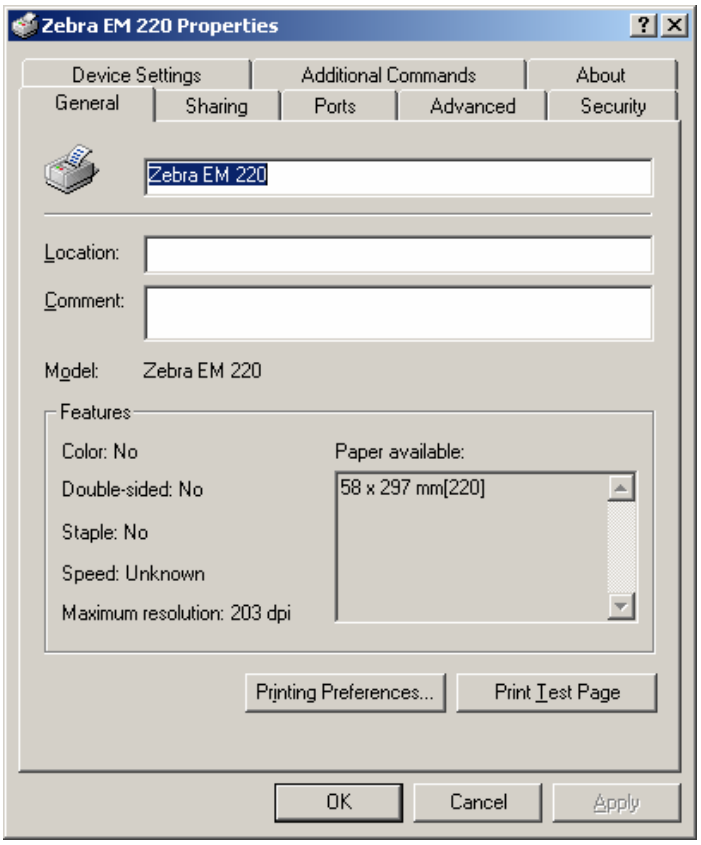
6) Turn on the printer.

7) The Windows Driver is automatically installed.

8) The USB Port setting can be confirmed in the Windows Driver properties.



9) Click the “Print Test Page” button and check printing status.



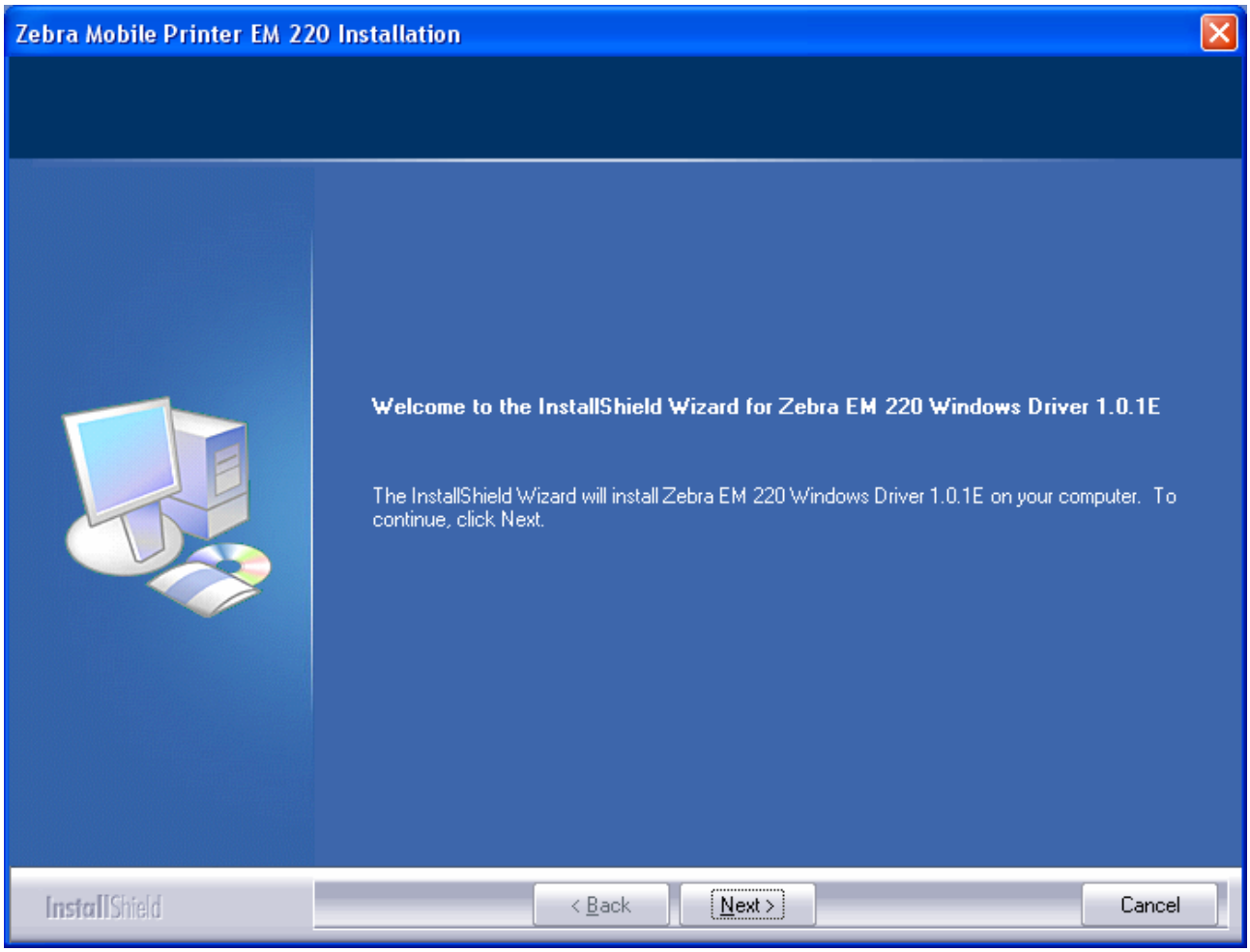
10) Proper installation of the driver is indicated if the test page is printed normally.

4-3 Installing on Windows XP/2003 Server

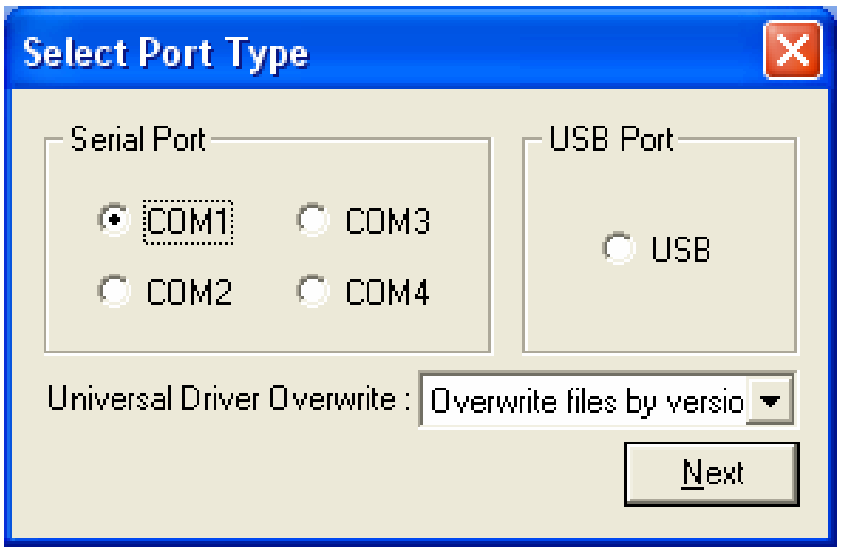
4-3-1 Via Serial Port or Bluetooth

1) Double-click the Windows Driver installation file (EM 220 _Vx.x.xx.exe).

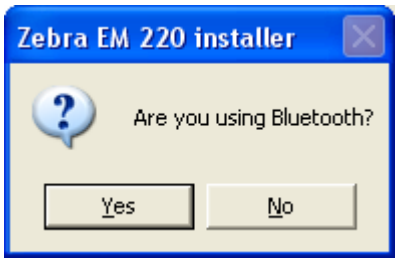
2) Click the “Next” button.


Zebra Mobile Printer EM 220 Installation
Welcome to the InstallShield Wizard for Zebra EM 220 Windows Driver 1.0.1E
The InstallShield Wizard will install Zebra EM 220 Windows Driver 1.0.1E on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

3) Select the COM port to be used and click the “Next” button.



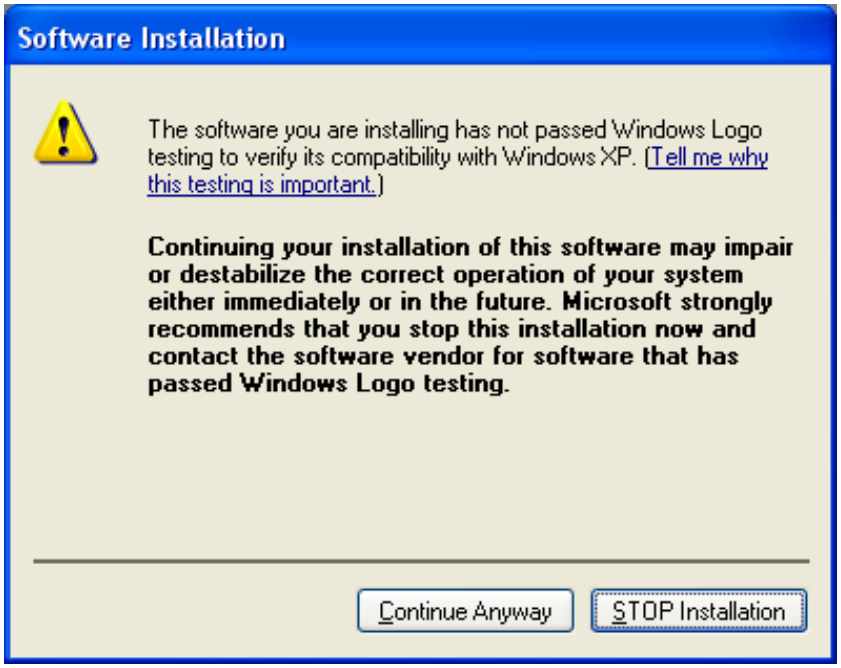
4) If using Bluetooth, click the “Yes” button.
- Click “No” if using a Serial port.
- To use Bluetooth, first install the corresponding product software.
(Refer to the user manual of the corresponding product.)



* Select the Bluetooth Driver to be used.
“Yes”: to use an IVT, Broadcom Driver
“No”: to use a driver supplied by the Windows OS

Zebra EM 220 installer
Notice
When you use Bluetooth,
we recommend you to use Software provided by Bluetooth Manufacturer.
Are you using Special Bluetooth Software?
[Yes] You have used Bluetooth Software such as Toshiba, IVT, Broadcom/Widdcom, etc.
[No] You have used Bluetooth driver automatically installed by OS.
Yes
No

5) When the following message box appears, click the “Continue Anyway” button.


Software Installation
The software you are installing has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the software vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

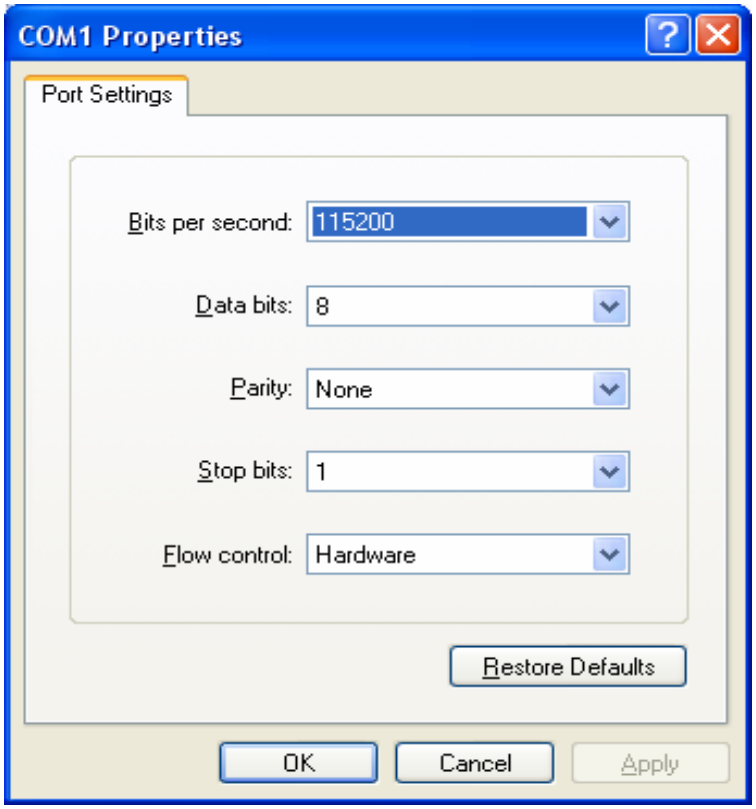
6) Clicking the “Yes” button will reboot the PC.

Zebra EM 220 installer
Restart the computer can take effect.
Please restart the computer.
[Yes] I want to restart my computer now.
[No] I will restart my computer later.
Yes
No

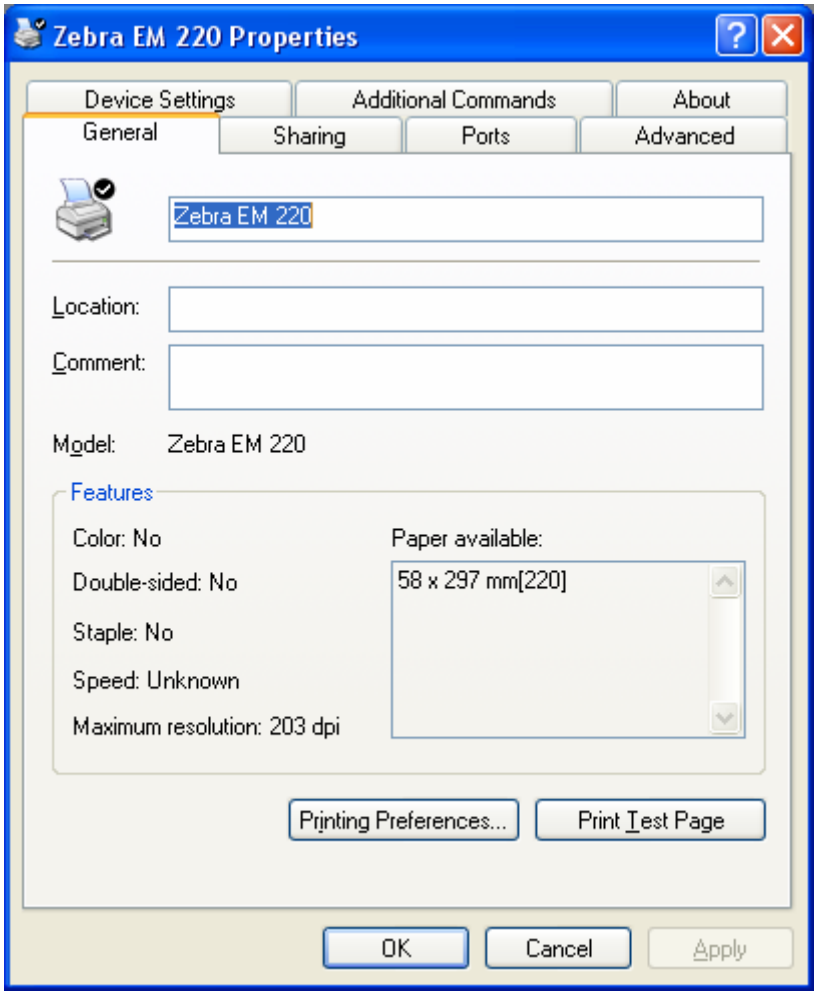
7) Open the printer properties window in the Windows OS.

8) Click the “Port Settings” button in the “Ports” tab.

9) Match the communication settings to those of the printer.
(The communication settings of the printer can be performed by conducting a self-test.)



10) Click the “Print Test Page” button and check printing status.

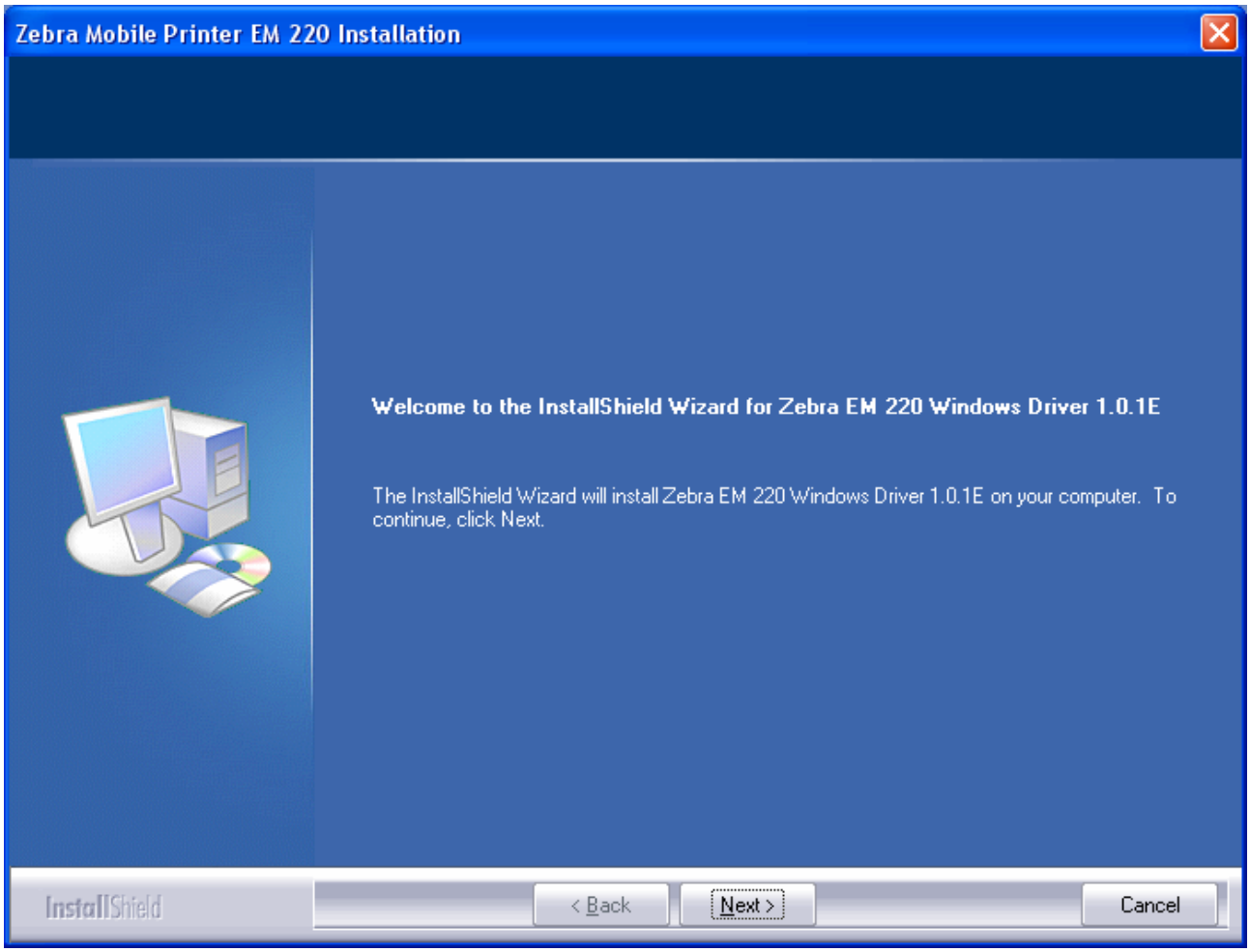


11) Proper installation of the driver is indicated if the test page is printed normally.

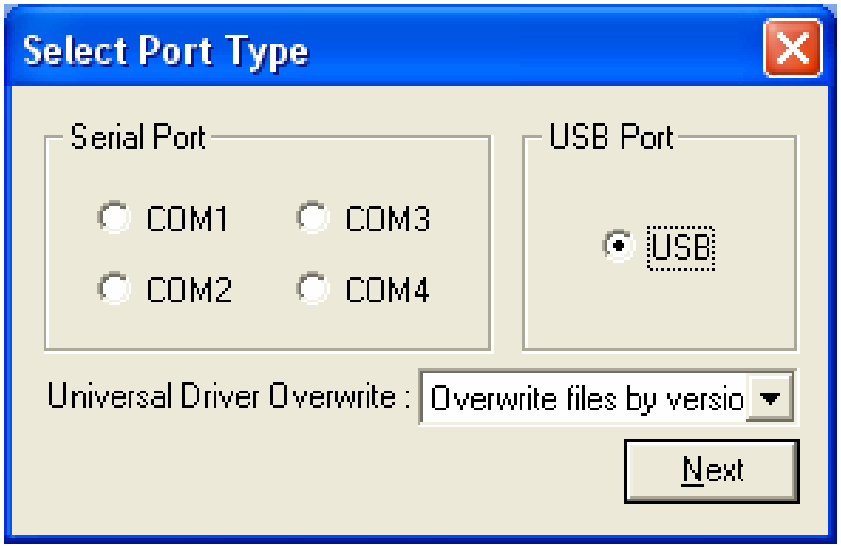
4-3-2 Via USB Port

1) Double-click the Windows Driver installation file (EM 220_Vx.x.xx.exe).

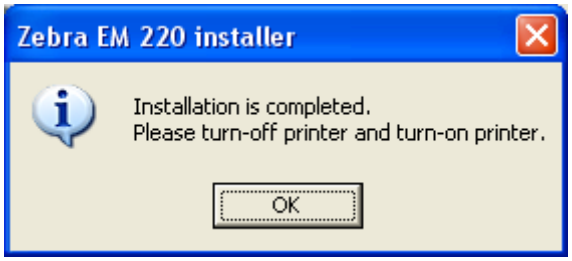
2) Click the “Next” button.


Zebra Mobile Printer EM 220 Installation
Welcome to the InstallShield Wizard for Zebra EM 220 Windows Driver 1.0.1E
The InstallShield Wizard will install Zebra EM 220 Windows Driver 1.0.1E on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

3) Select USB and click the “Next” button.



4) Click the “OK” button.

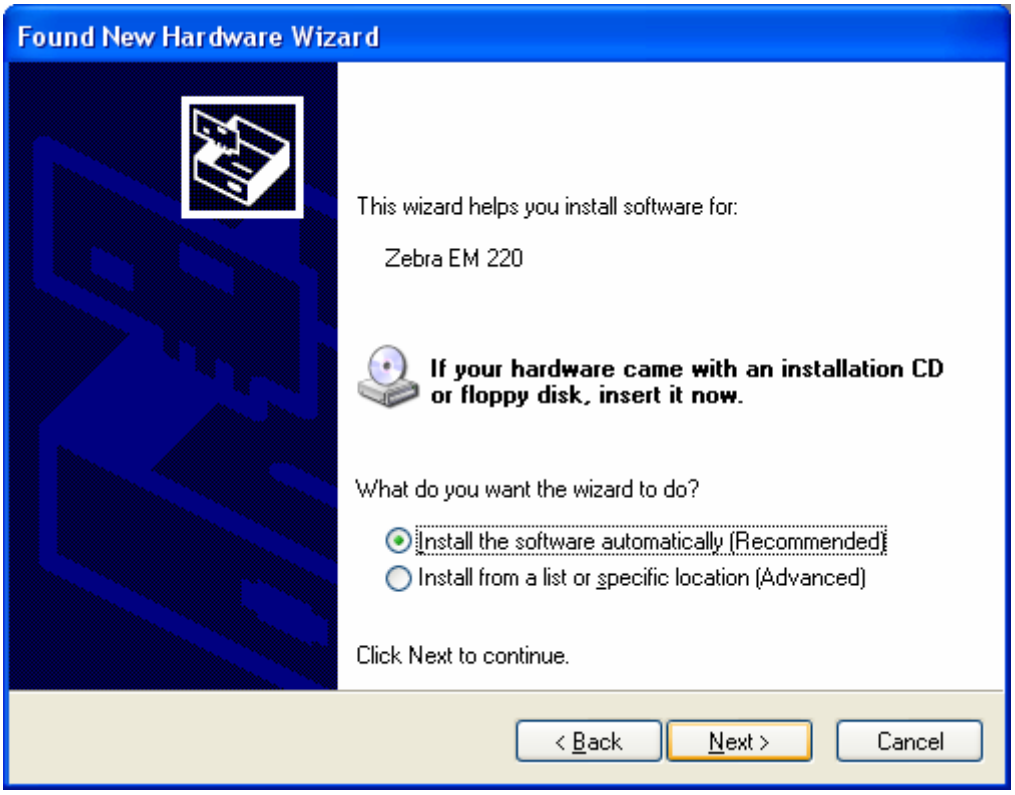


5) Turn on the printer.

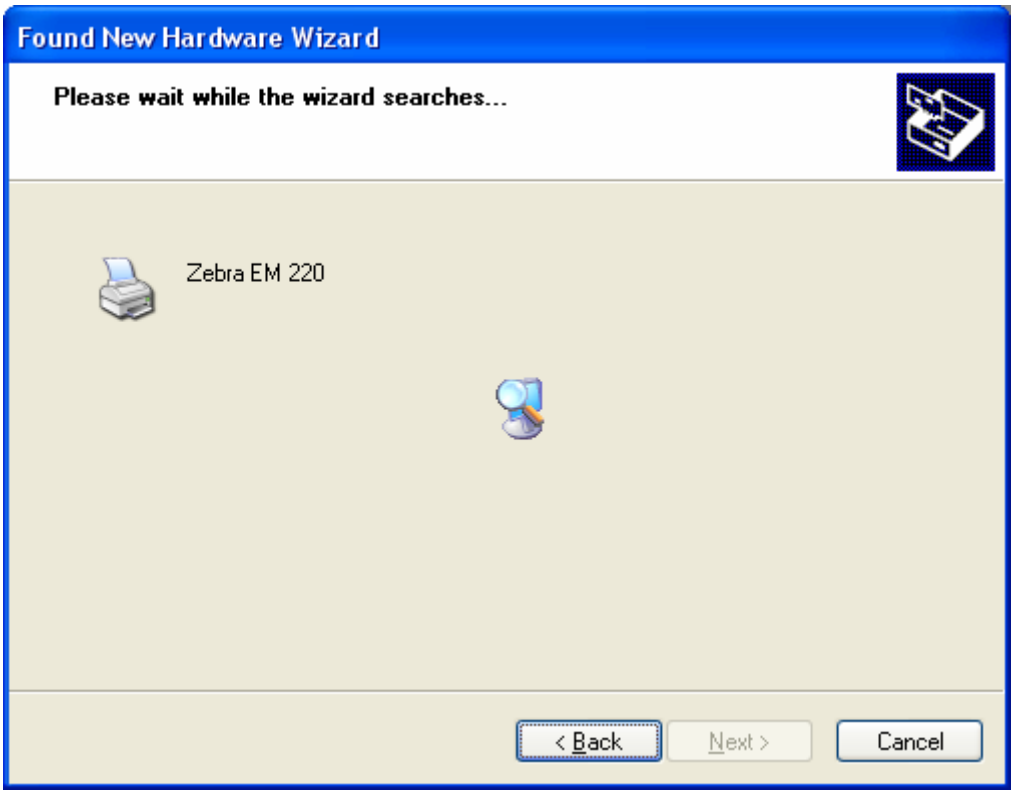
6) When the New Hardware Wizard appears for the installation of the Windows Driver, select the option as shown below and click the “Next” button.

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy
Can Windows connect to Windows Update to search for software?
Yes, this time only
Yes, now and every time I connect a device
No, not this time
Click Next to continue.
< Back
Next >
Cancel

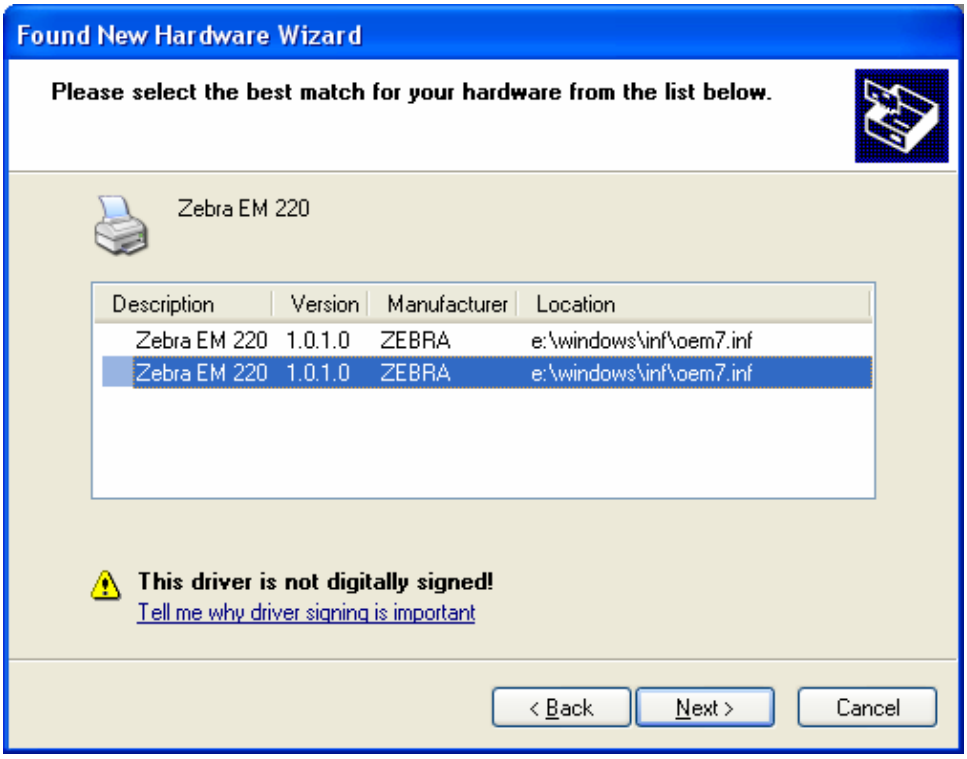
7) Click the “Next” button.


Found New Hardware Wizard
This wizard helps you install software for:
Zebra EM 220
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

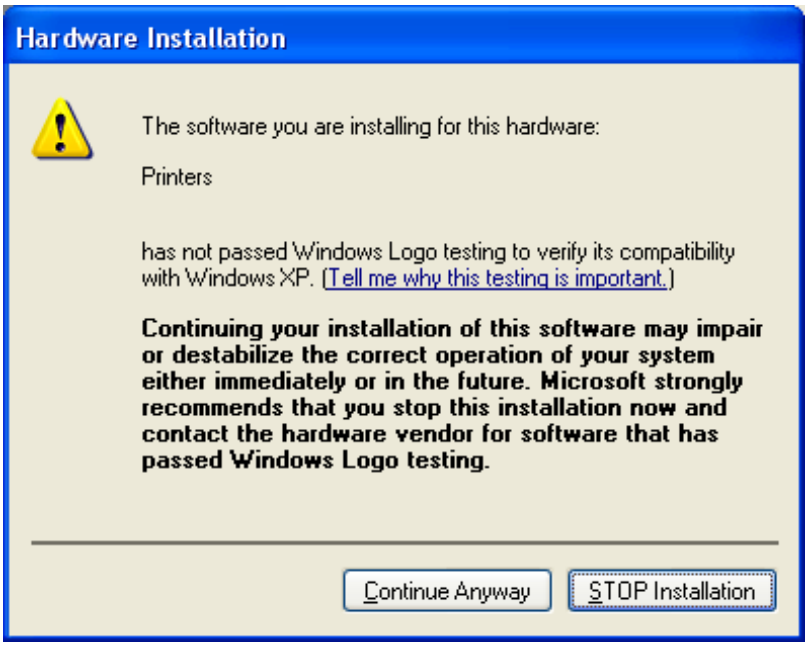
8) Click the “Next” button.

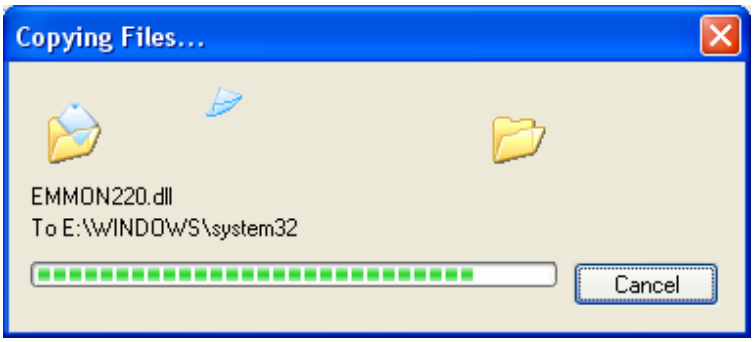


9) Click the “Next” button.



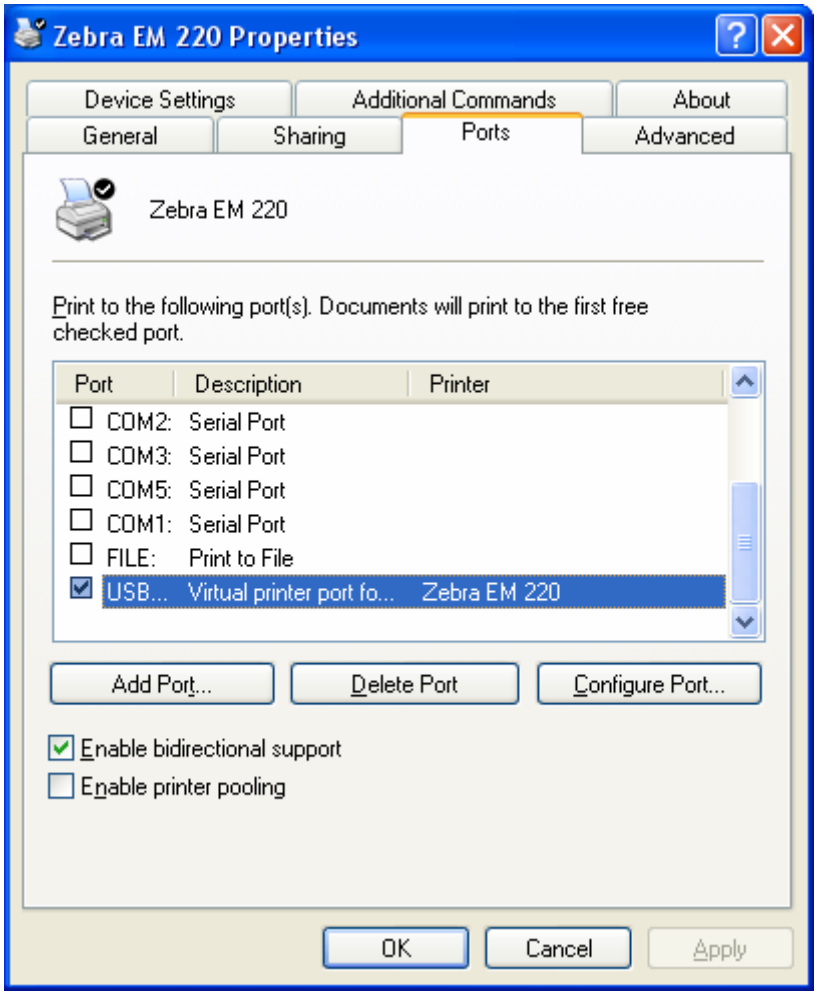
10) Click the “Continue Anyway” button.


Hardware Installation
The software you are installing for this hardware:
Printers
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

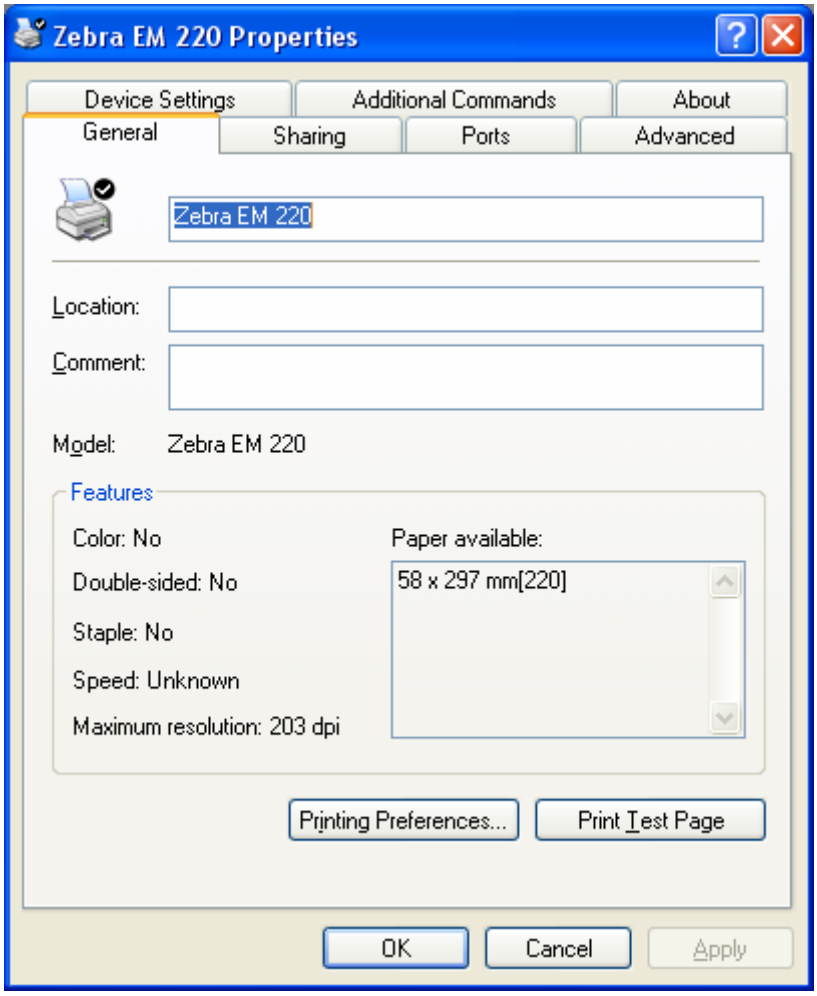


11) Click the “Finish” button.

12) The USB Port setting can be confirmed in the Windows Driver properties.



13) Click the “Print Test Page” button and check printing status.



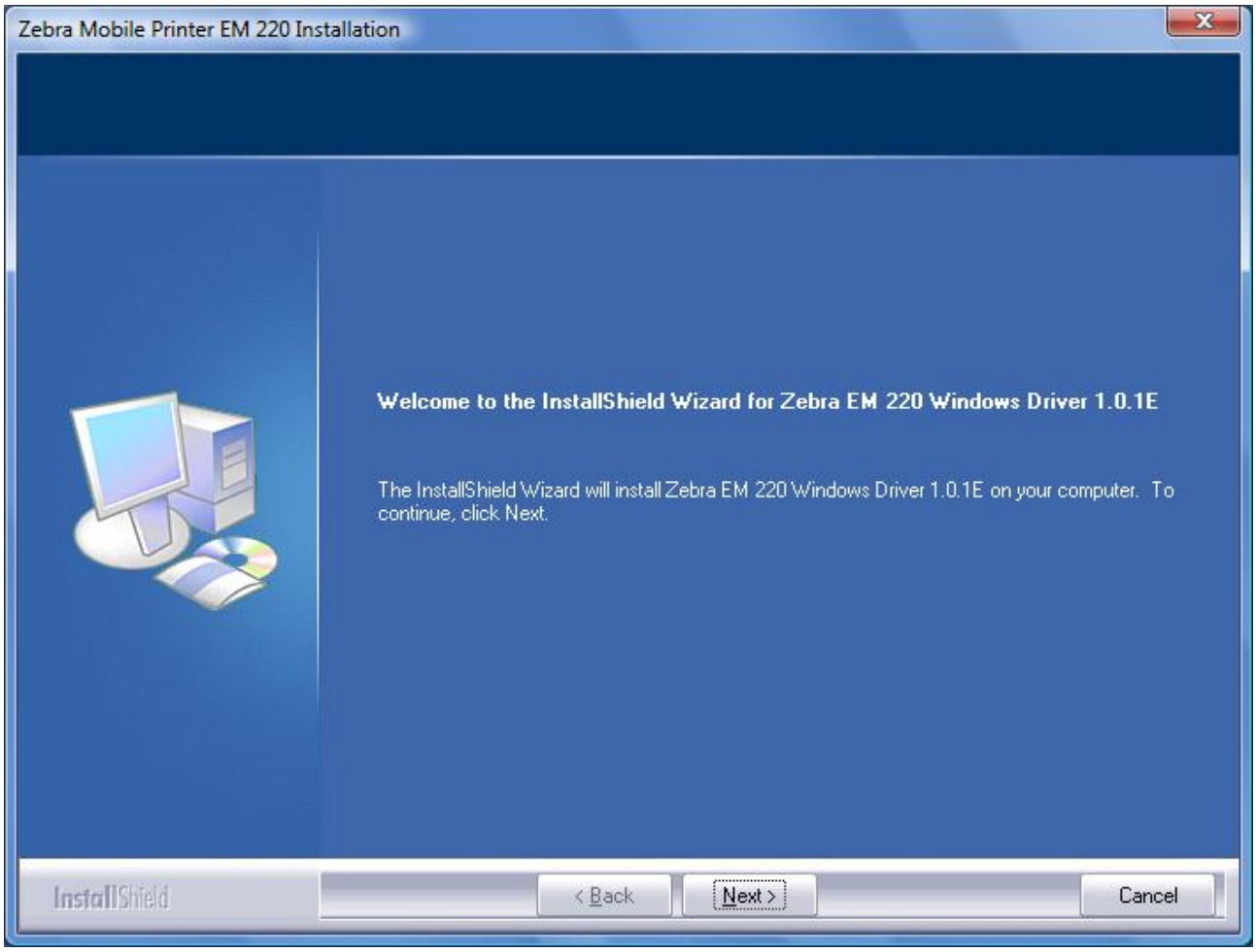
14) Proper installation of the driver is indicated if the test page is printed normally.

4-4 Installing on Windows VISTA

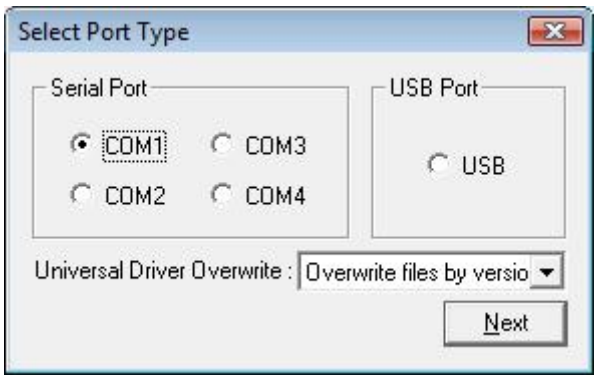
4-4-1 Via Serial Port or Bluetooth

1) Double-click the Windows Driver installation file (EM 220_Vx.x.xx.exe).

2) Click the “Next” button.

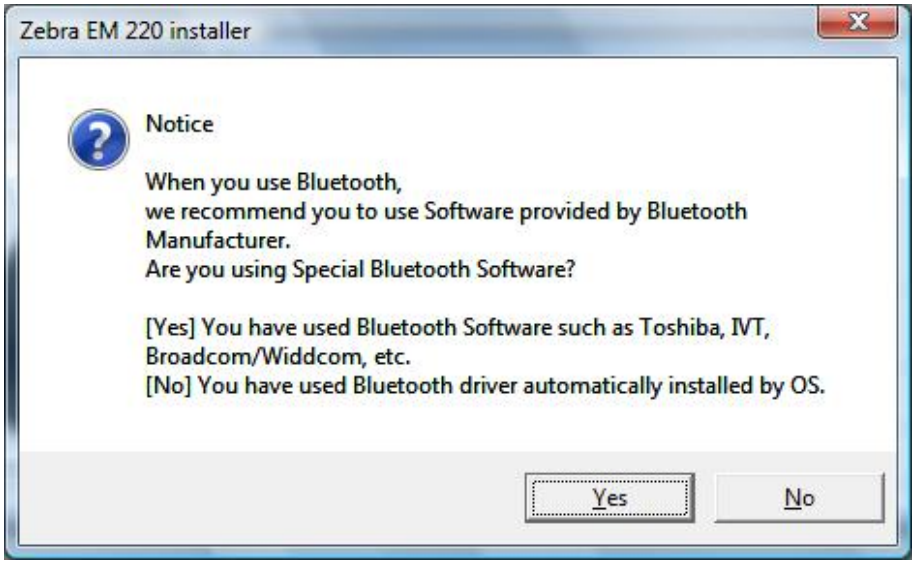

Zebra Mobile Printer EM 220 Installation
Welcome to the InstallShield Wizard for Zebra EM 220 Windows Driver 1.0.1E
The InstallShield Wizard will install Zebra EM 220 Windows Driver 1.0.1E on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

3) Select the COM port to be used and click the “Next” button.

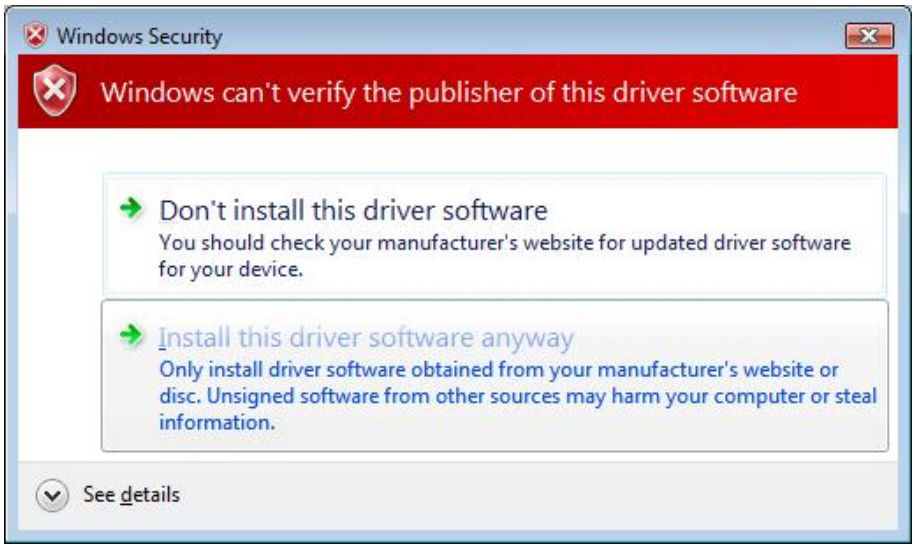


4) If using Bluetooth, click the “Yes” button.
   - Click “No” if using a Serial port.
   - To use Bluetooth, first install the corresponding product software.
     (Refer to the user manual of the corresponding product.)

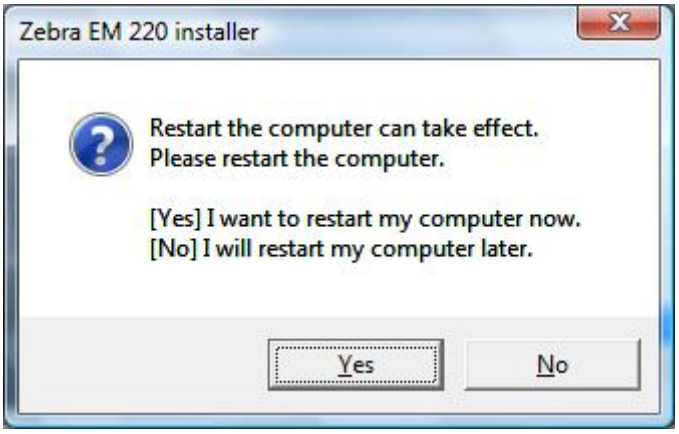
* Select the Bluetooth Driver to be used.
  “Yes”: to use an IVT, Broadcom Driver
  “No”: to use a driver supplied by the Windows OS


Zebra EM 220 installer
Notice
When you use Bluetooth,
we recommend you to use Software provided by Bluetooth Manufacturer.
Are you using Special Bluetooth Software?
[Yes] You have used Bluetooth Software such as Toshiba, IVT, Broadcom/Widdcom, etc.
[No] You have used Bluetooth driver automatically installed by OS.
Yes
No

5) When the following message box appears, click the “Install this driver software anyway” button.


Windows Security
Windows can't verify the publisher of this driver software
Don't install this driver software
You should check your manufacturer's website for updated driver software for your device.
Install this driver software anyway
Only install driver software obtained from your manufacturer's website or disc. Unsigned software from other sources may harm your computer or steal information.
See details

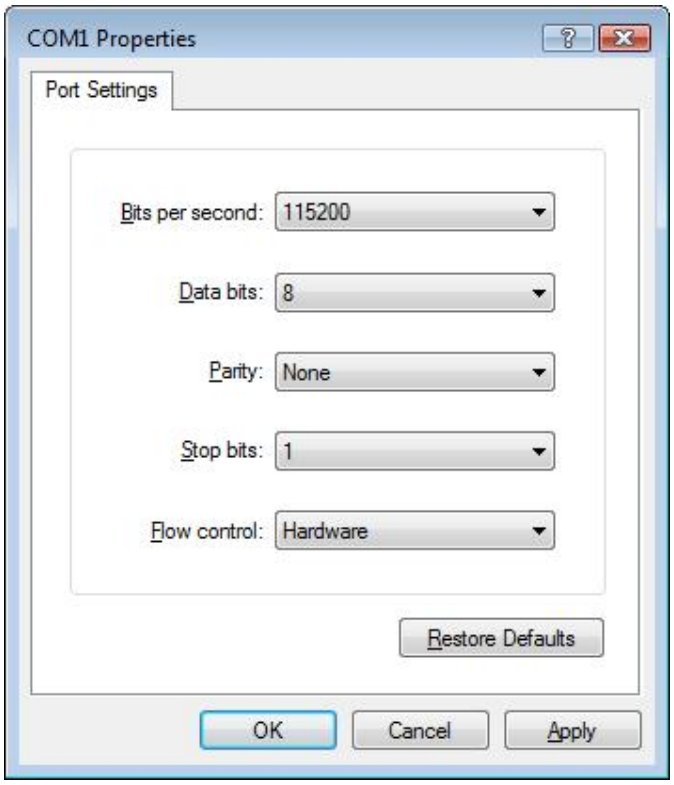
6) Clicking the “Yes” button will reboot the PC.


Zebra EM 220 installer
Restart the computer can take effect.
Please restart the computer.
[Yes] I want to restart my computer now.
[No] I will restart my computer later.
Yes
No

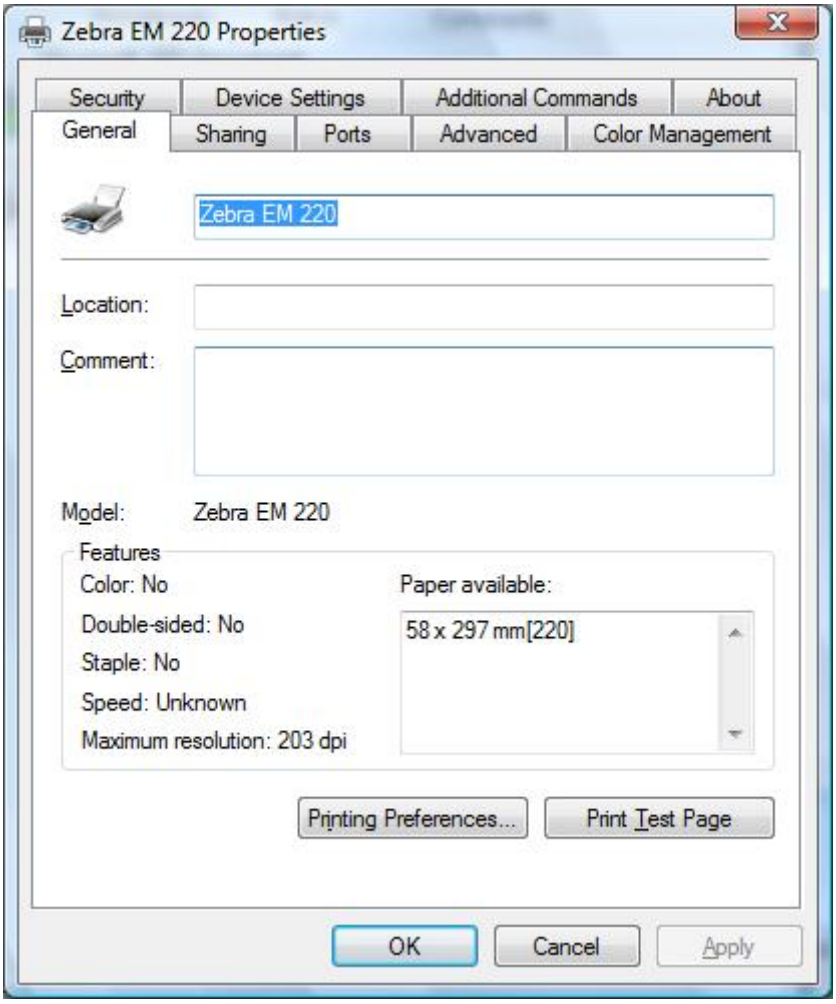
7) Open the printer properties window in the Windows OS.

8) Click the “Port Settings” button in the “Ports” tab.

9) Match the communication settings to those of the printer.
(The communication settings of the printer can be performed by conducting a self-test.)



10) Click the “Print Test Page” button and check printing status.

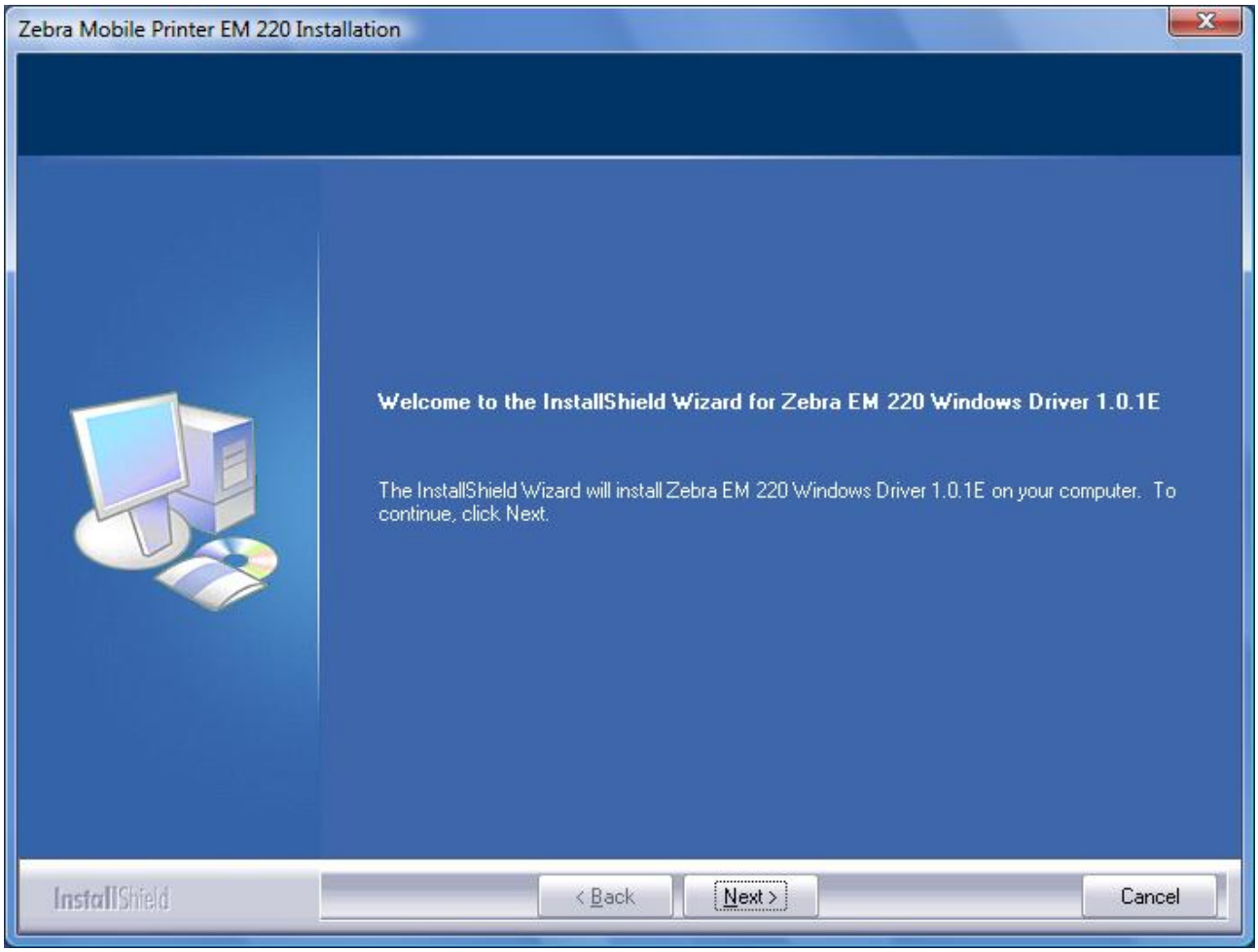


11) Proper installation of the driver is indicated if the test page is printed normally.

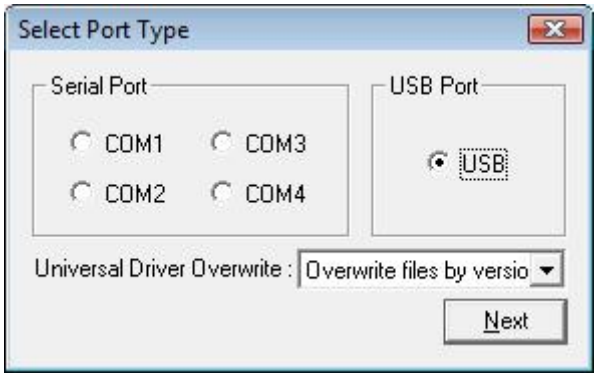
4-4-2 Via USB Port

1) Double-click the Windows Driver installation file (EM 220_Vx.x.xx.exe).

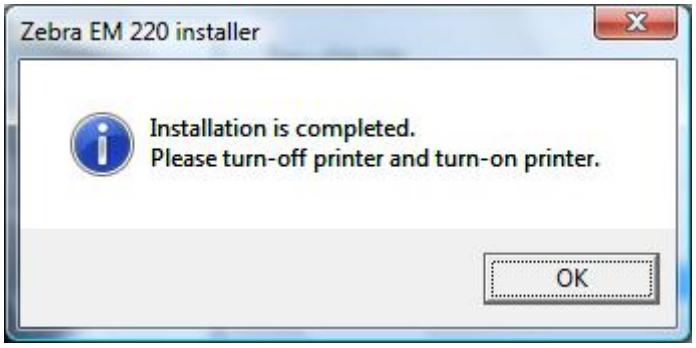
2) Click the “Next” button.


Zebra Mobile Printer EM 220 Installation
Welcome to the InstallShield Wizard for Zebra EM 220 Windows Driver 1.0.1E
The InstallShield Wizard will install Zebra EM 220 Windows Driver 1.0.1E on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

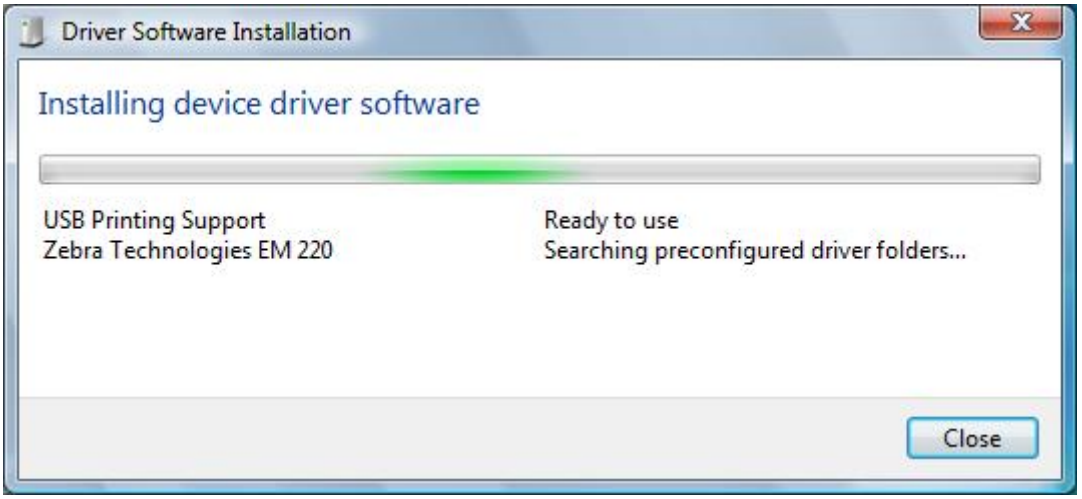
3) Select USB and click the “Next” button.

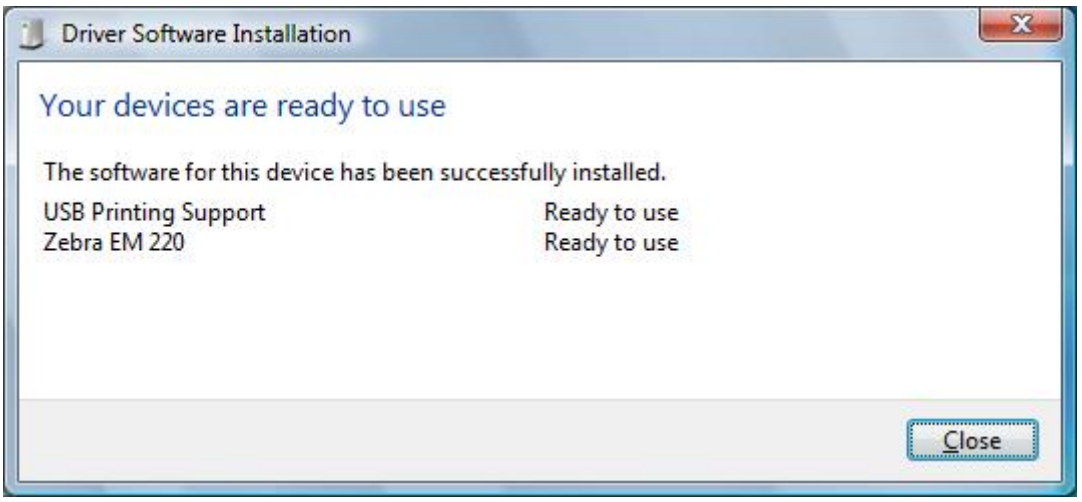


4) Click the “OK” button.

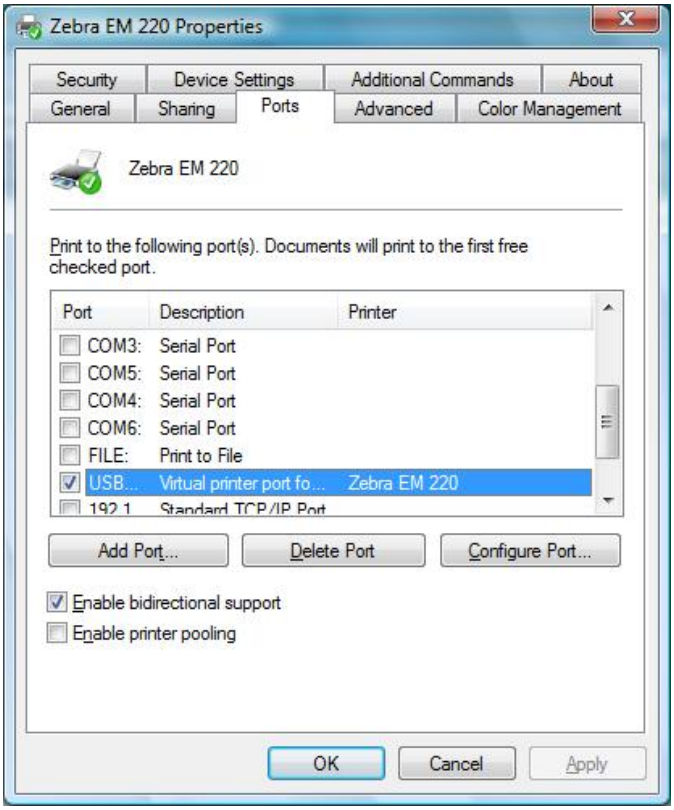


5) Turn on the printer.

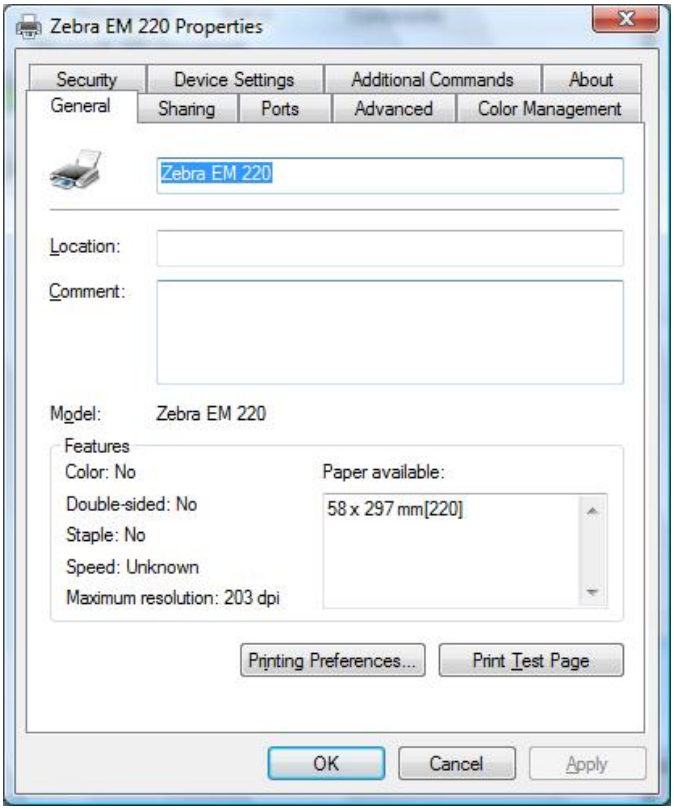




6) The USB Port setting can be confirmed in the Windows Driver properties.



7) Click the “Print Test Page” button and check printing status.



8) Proper installation of the driver is indicated if the test page is printed normally..

5. Detailed Windows Driver Settings

The following functions can be set in detail after the Windows Driver installation is complete.

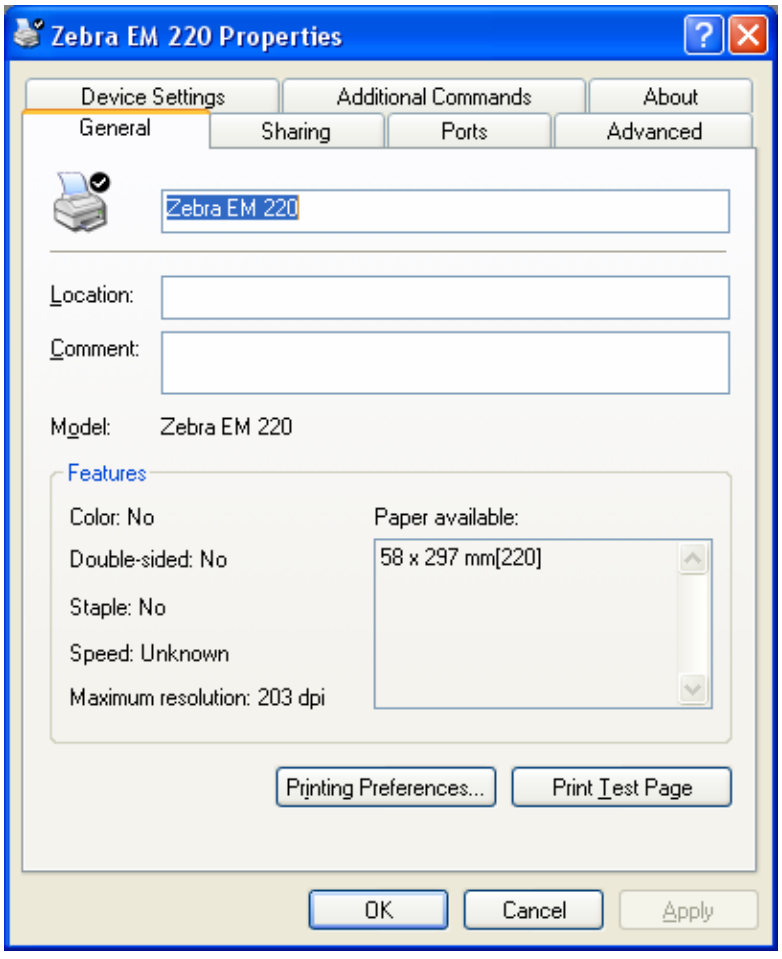
5-1 Paper Supply Method

The printer structure is such that the print head, which carries out printing, and the cutter, which cuts the printing paper, are separated. After printing, the location of the end section can be adjusted as follows.

- Automatically Select: Select the “Receipt” automatically.
- Receipt: Printed text is transferred up to the cutter (manual cutter).
- Receipt [No feed]: Printed text is transferred up to the next line only. (minimum transfer: 0x0A).
- Form: For long print jobs, printed text is transferred according to the Receipt option per selected paper size.

Detailed setting can be done as follows.

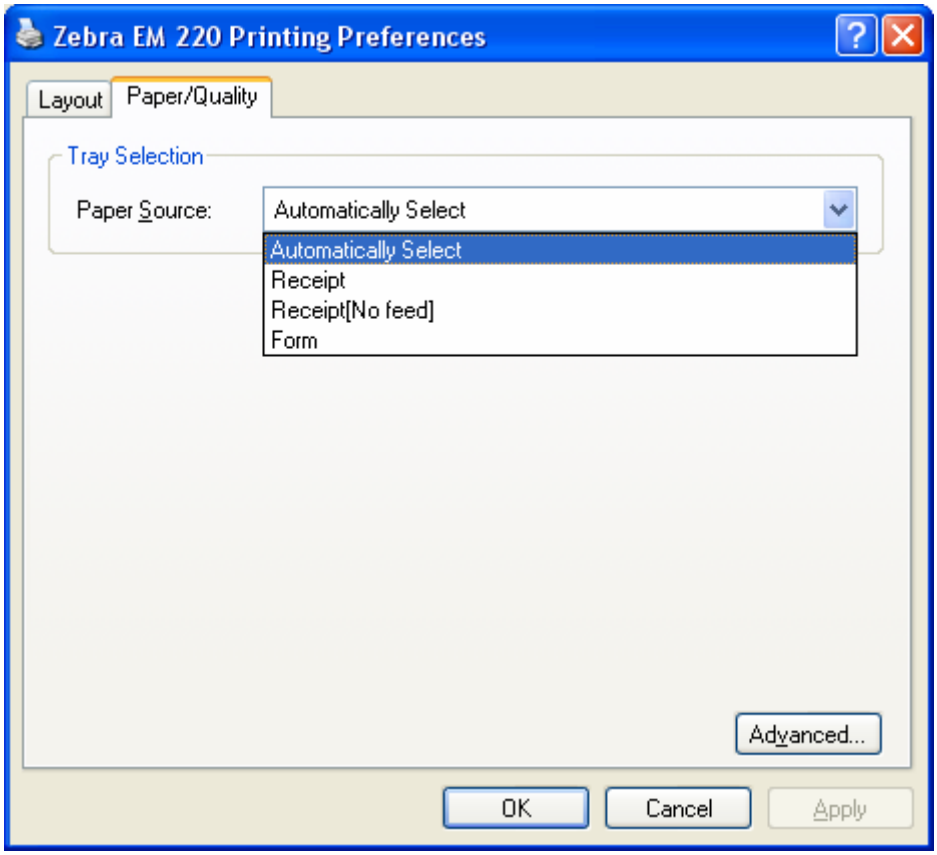
1) Open the printer properties window in the Windows OS.



2) Click the “Printing Preferences” button in the “General” tab.
The button name varies by Windows OS. Refer to the following:

- Windows 95/98/ME: “Properties”
- Windows NT4.0: “Document Defaults”
- Windows 2000/XP/2003 Server: “Printing Preferences”
- Windows WEPOS/VISTA: “Printing Preferences”

3) Select the desired setting in the “Paper/Quality” tab.
(Resolution is fixed at 203 × 203.)



5-2 Paper Size

The paper sizes available in the Windows Driver are as follows:

- 58 × 297 mm [220]
- 58 × 3276 mm [220]
- Custom Size (Windows 9x supported)

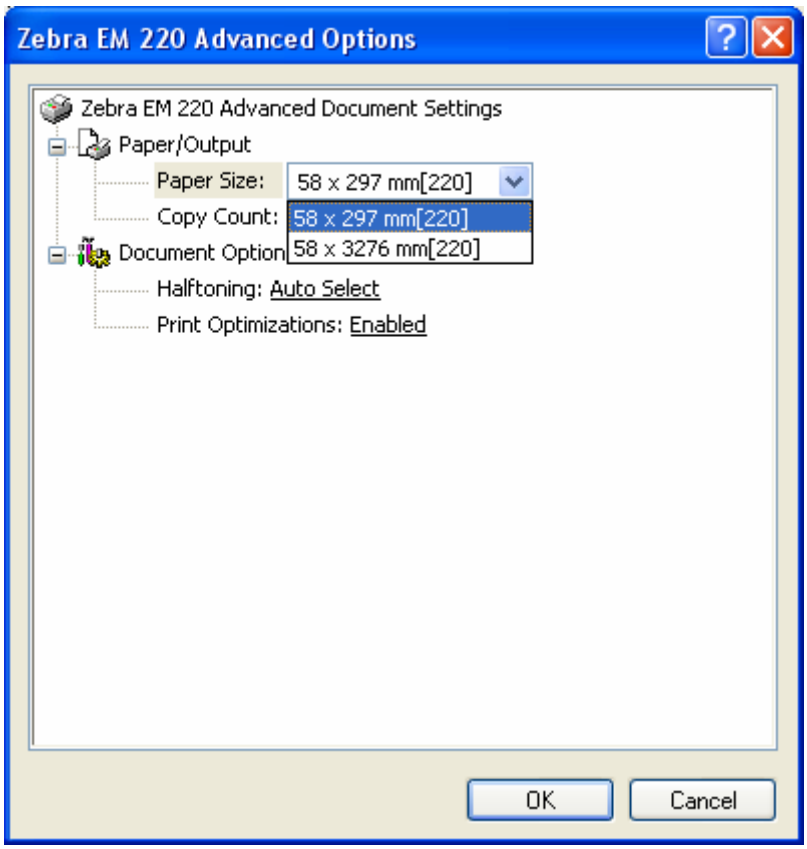
Detailed setting can be done as follows:

1) Open the printer properties window in the Windows OS.

2) Click the “Printing Preferences” button in the “General” tab.
The button name varies by Windows OS. Refer to the following:

- Windows 95/98/ME: “Properties”
- Windows NT4.0: “Document Defaults”
- Windows 2000/XP/2003 Server: “Printing Preferences”
- Windows WEPOS/VISTA: “Printing Preferences”

3) Select the “Paper/Quality” tab, and click the “Advanced” button.
Select the desired setting.



5-3 Additional Commands

The Windows Driver serves to receive the content for print from an application and send it to the printer. The Additional Commands function allows for the addition of desired commands at the beginning or end of the print content sent to the printer.

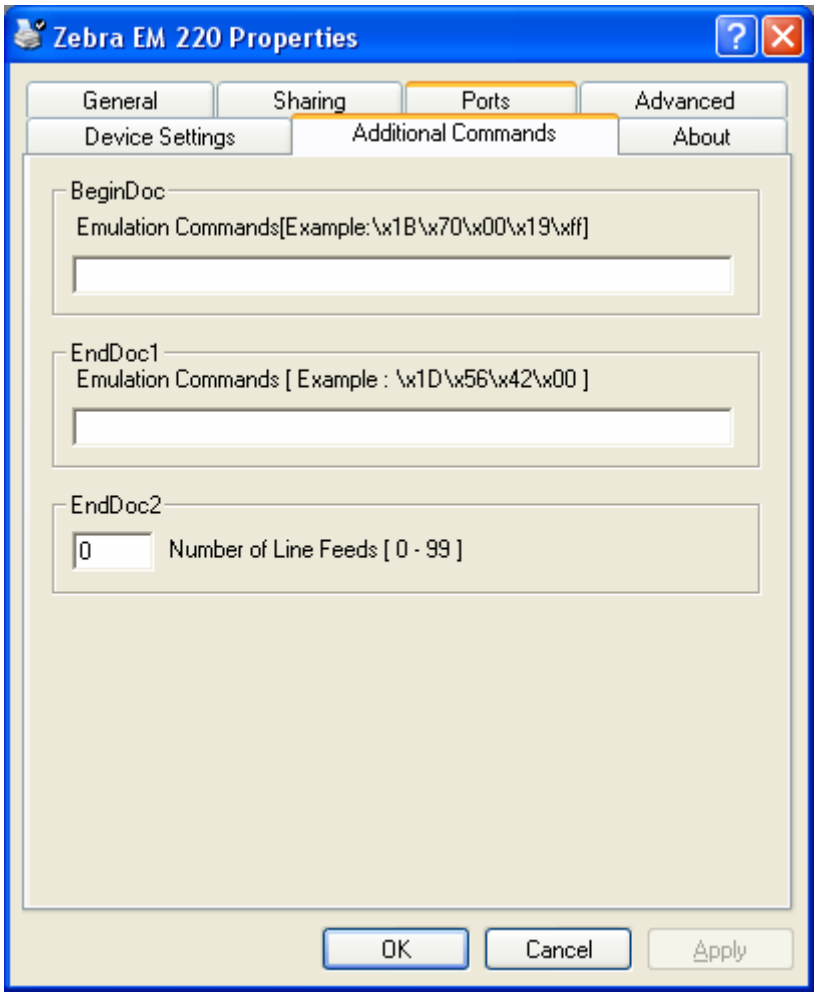
The command functions available are as follows:

- BeginDoc: addition of command at the beginning of the print content
- EndDoc1: addition of command at the end of the print content
- EndDoc2: addition of line feeding at the end of the print content

Detailed setting can be done as follows:

1) Open the printer properties window in the Windows OS.

2) Click the “Additional Commands” tab.



3) If the user opts to open Cash Drawer 1 prior to printing, enter “\x1B\x70\x00\x19\xff” in the “BeginDoc” space and click the “OK” button.

4) If the user opts to open Cash Drawer 1 at the end of printing, enter “\x1B\x70\x00\x19\xff” in the “EndDoc1” space and click the “OK” button.

5) If the user opts to feed three lines at the end of printing, enter “3” in the “EndDoc2” space and click the “OK” button.

For more information on the hexadecimals that can be entered in “BeginDoc” and “EndDoc1”, refer to the Control Commands Manual.

6. Windows Driver Specifications

6-1 Fonts

The Windows Driver of the printer supports the fonts listed below.
Printing is done at faster speed when using the fonts below as opposed to the Windows fonts of the OS.

Printer Fonts			Character Size (dot)	Sizes (point)
FontA1x1	FontA1x1[Ext.]	FontA1x1[255]	FontA1x1(12x24)	8.5
FontA1x2	FontA1x2[Ext.]	FontA1x2[255]	FontA1x2(12x48)	17
FontA2x1	FontA2x1[Ext.]	FontA2x1[255]	FontA2x1(24x24)	8.5
FontA2x2	FontA2x2[Ext.]	FontA2x2[255]	FontA2x2(24x48)	17
FontA2x4	FontA2x4[Ext.]	FontA2x4[255]	FontA2x4(24x96)	34
FontA4x2	FontA4x2[Ext.]	FontA4x2[255]	FontA4x2(48x48)	17
FontA4x4	FontA4x4[Ext.]	FontA4x4[255]	FontA4x4(48x96)	34
FontA4x8	FontA4x8[Ext.]	FontA4x8[255]	FontA4x8(48x192)	68
FontA8x4	FontA8x4[Ext.]	FontA8x4[255]	FontA8x4(96x96)	34
FontA8x8	FontA8x8[Ext.]	FontA8x8[255]	FontA8x8(96x192)	68
FontB1x1	FontB1x1[Ext.]	FontB1x1[255]	FontB1x1(9x24)	6
FontB1x2	FontB1x2[Ext.]	FontB1x2[255]	FontB1x2(9x48)	12
FontB2x1	FontB2x1[Ext.]	FontB2x1[255]	FontB2x1(18x24)	6
FontB2x2	FontB2x2[Ext.]	FontB2x2[255]	FontB2x2(18x48)	12
FontB2x4	FontB2x4[Ext.]	FontB2x4[255]	FontB2x4(18x96)	24
FontB4x2	FontB4x2[Ext.]	FontB4x2[255]	FontB4x2(36x48)	12
FontB4x4	FontB4x4[Ext.]	FontB4x4[255]	FontB4x4(36x96)	24
FontB4x8	FontB4x8[Ext.]	FontB4x8[255]	FontB4x8(36x192)	48.5
FontB8x4	FontB8x4[Ext.]	FontB8x4[255]	FontB8x4(72x96)	24
FontB8x8	FontB8x8[Ext.]	FontB8x8[255]	FontB8x8(72x192)	48.5

Printer Fonts are defined as follows.

1) FontA1x2
   - ANSI Character code support (Code Page 16: 1252)
   - Character size (dot): 12 x 24 (double height)
   - Sizes (point): 17

2) FontA1x2[Ext]
   - IBM expansion Character code support (Code Page 0: 437)
   - Character size (dot): 12 x 24 (double height)
   - Sizes (point): 17

3) FontA1x2[255]
   - Buyer exclusive code support (Code Page 255)
   - Character size (dot): 12 x 24 (double height)
   - Sizes (point): 17

6-2 Special Functions

The Windows Driver supports the special functions indicated below.
These special functions are available when using the characters after the “FontControl” font is selected.

Note: This function is not an ordinary character printing function.

Character	Special Function
5	Prints HT (0 x 09)
6	Prints LF (0 x 0A)
7	Prints CR (0 x 0D)
i	Prints 1st color image in double-sized mode.
j	Prints 2nd color image in double-sized mode.
k	Prints 3rd color image in double-sized mode.
l	Prints 4th color image in double-sized mode.
m	Prints 5th color image in double-sized mode.
p	Does not add HRI characters to the barcode
q	Adds HRI characters in FontA above the barcode
r	Adds HRI characters in FontA below the barcode
s	Adds HRI characters in FontB above the barcode
t	Adds HRI characters in FontB below the barcode
w	Aligns text to the left
x	Aligns text to the center
y	Aligns text to the right
R	Prints 1st color image.
S	Prints 2nd color image.
T	Prints 3rd color image.
U	Prints 4th color image.
V	Prints 5th color image.

1) Sample Use

If the “FontControl” font is selected and 6 is entered, the “LF” (Line Feeding) operation is activated.
(does not entail the printing of the character “6”)

2) “FontControl” Font Function

Printer Font for Special Function	Function	Size (point/dot)
FontControl	Justification (Left/Center/Right) Output HT, Output LF, Output CR Barcode Printing Print NV Graphic Data	(8.5 / 12x24)

6-3 Barcodes

The Windows Driver supports the barcodes indicated below.
This function is available when entering barcode data after selecting “Printer Font Name”.
In addition, the “FontControl” font can be used to add HRI characters.

Printer Font Name	Size	Supported Characters
Codabar	18/35.5/53/71	Numberic: 0~9 Symbols: $, +, -, ., /, : Letters: A~D
Code39	18/35.5/53/71	Numberic: 0~9 Symbols: $, +, -, ., / Letters: A~Z
JAN13(EAN)	18/35.5/53/71	Numberic: 0~9
JAN8(EAN)	18/35.5/53/71	Numberic: 0~9
ITF	18/35.5/53/71	Numberic: 0~9
UPC-A	18/35.5/53/71	Numberic: 0~9
UPC-E	18/35.5/53/71	Numberic: 0~9
Code93	18/35.5/53/71	ASCII CODE: 0~127
Code128	18/35.5/53/71	ASCII CODE: 0~127

1) Sample Use

Select “Code39” and Size “18”, and then enter “1234”.
The barcode corresponding to “1234” is printed.

2) When Using Code128

Select “Code128” and Size “18”, and then enter “{B1234”.
The barcode corresponding to “1234” is printed.

When using “Code128”, characters, such as “{A”, “{B”, “{C”, must be included before the input data.

6-4 Two-Dimensional Barcodes

The Windows Driver supports the following two-dimensional barcodes.

- PDF417
- QR Code

Usage is identical to that for barcodes.

7. Use of Windows Driver

7-1 Use of Visual Basic

This section explains the use of the Windows Driver with Visual Basic to control the printer (EM 220).

Sample programs are saved together if the Windows Driver is installed.

7-1-1 Windows Driver Selection

The following code is an example of the selection of the “Zebra EM 220” Windows Driver:

```
For Each prnPrinter In Printers
If prnPrinter.DeviceName = “Zebra EM 220” Then
Set Printer = prnPrinter
Exit For
End If
Next
```

7-1-2 Test Printing

The following code is an example of the printing of Arial Test via the Windows font, and FontA1x1Test via the printer font:

```
'Print in Windows font
Printer.FontSize = 9
Printer.FontName = “Arial”
Printer.Print “Arial Test”


'Print in printer font
Printer.FontSize = 8.5
Printer.FontName = “FontA1x1”
Printer.Print “FontA1x1Test”

Printer.EndDoc
```

7-1-3 Barcode Printing

The following code is an example of the printing of the JAN8 (EAN) barcode:

```
'Print Bar Code.
Printer.FontSize = 18

Printer.FontName = "JAN8 (EAN)"
Printer.Print "1234567"

Printer.EndDoc
```

7-1-4 Two-Dimensional Barcode Printing

The following code is an example of the printing of the PDF417 two-dimensional barcode:

```
'Print Two-dimensional Codes.
Printer.FontSize = 9.5

Printer.FontName = "PDF417"
Printer.Print "Print Test PDF417"

Printer.EndDoc
```

7-2 Use of Wordpad

7-2-1 Wordpad Environment Settings

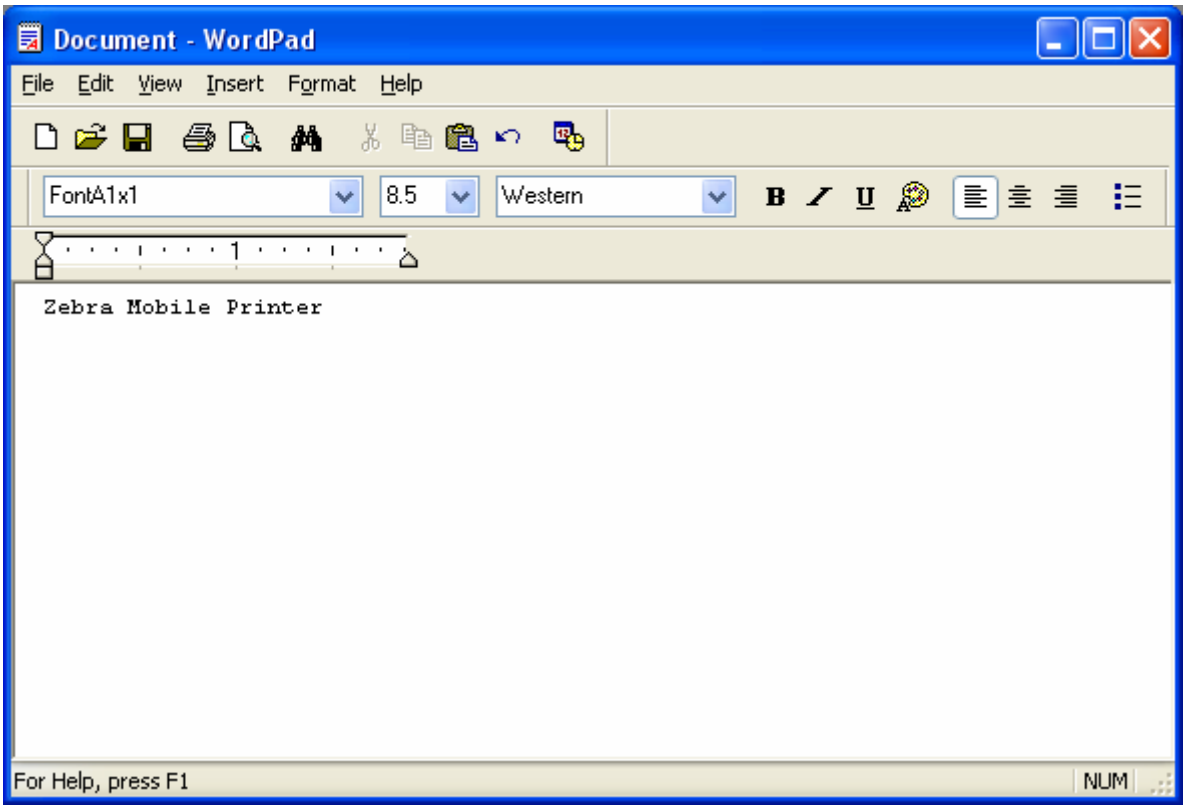
After running Wordpad and setting the following conditions, conduct a test.

- Select Printer
  After selecting “Print” from the “File” tab, select the printer (Zebra EM 220).

- Select Paper Size, Orientation, and Margins
  After selecting “Page Settings” from the “File” tab, select the paper size, orientation, and margins.

7-2-2 Text Printing

Use the Windows Driver of the printer to run a test.



1) Select the desired font from the Font menu (FontA 1x1).

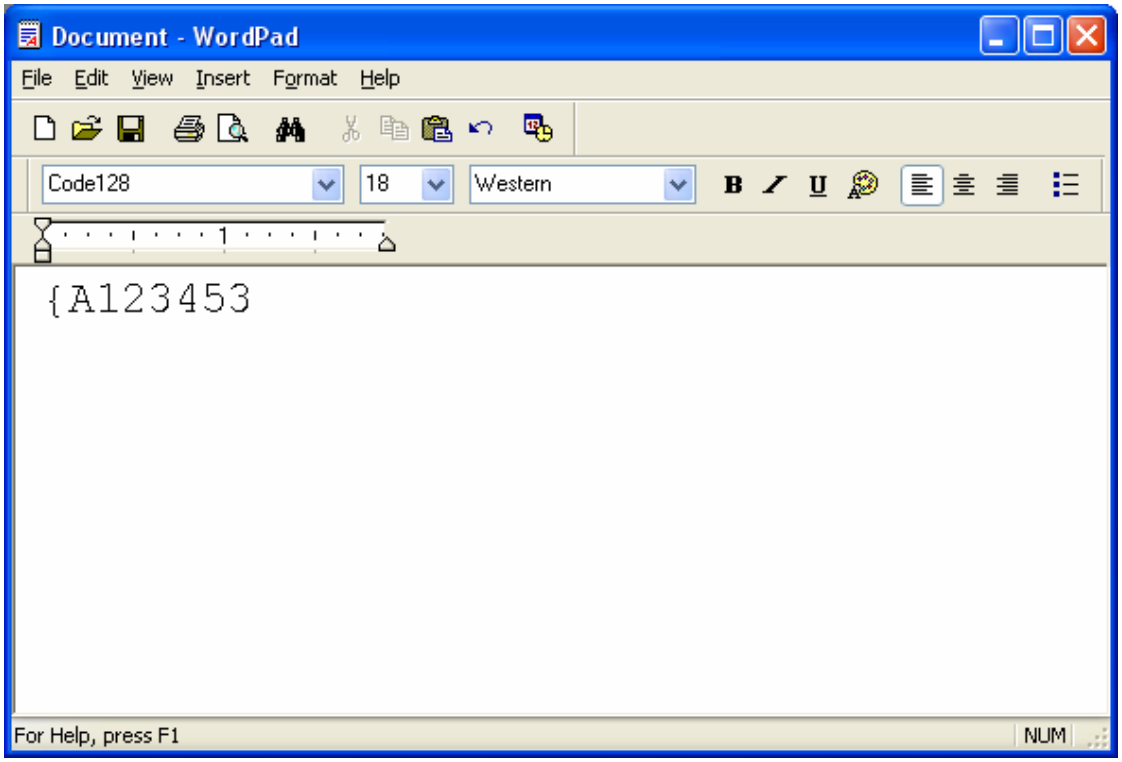
2) Select the desired font size (8.5).

3) Enter the text to be printed in Wordpad.

4) Click the Print button in the toolbar to print.

7-2-3 Barcode Printing

Use the Windows Driver of the printer to print the barcode.



1) Select the desired barcode from the Font menu (Code128).

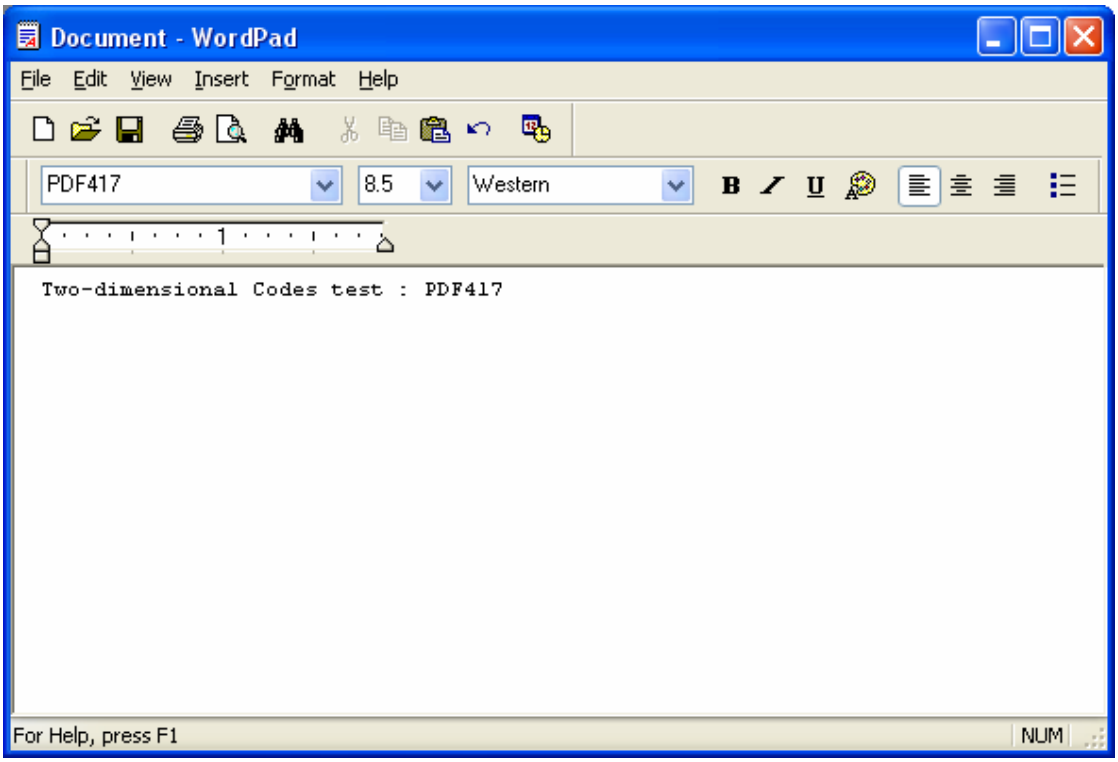
2) Select the desired font size (18).

3) Enter “{A123435” in Wordpad.

4) Click the Print button in the toolbar to print.

7-2-4 Two-Dimensional Barcode Printing

Use the Windows Driver of the printer to print the two-dimensional barcode.



1) Select the desired two-dimensional barcode from the Font menu (PDF417).

2) Select the desired font size (8.5).

3) Enter “Two-dimensional Codes Test: PDF417” in Wordpad.

4) Click the Print button in the toolbar to print.

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